

POSTWAR ECONOMIC STUDIES

No. 7, September 1947

INTERNATIONAL MONETARY POLICIES

LLOYD A. METZLER

ROBERT TRIFFIN

GOTTFRIED HABERLER

BOARD OF GOVERNORS
OF THE FEDERAL RESERVE SYSTEM
WASHINGTON

PREFACE

Central bank operations reflect to some extent all the phases of a nation's economic life and in turn all parts of the economy are influenced by central banking policies. It is necessary, therefore, for central banking authorities to have current information and understanding about the economic problems with which the country is confronted. For many years the Board of Governors of the Federal Reserve System and the Federal Reserve Banks have had staffs of economists engaged in the task of collecting, coordinating and interpreting data that throw light on the economic activities of the country with special reference to their bearing on credit and monetary policies.

In this series of booklets there will be presented studies by members of the Board and the Reserve Banks' staffs on many phases of economic reconstruction after the war and on longer term problems of the economy. These studies are in substance by products of the work done by these economists in the performance of their current duties. The views expressed in these papers are entirely those of the authors. In some cases dissenting opinions or comments by other members of the staff are printed at the end of a paper. The Board's authorization of the publication of these studies is motivated solely by the belief that the material presented may be of value in furthering the discussion of the many difficult questions with which

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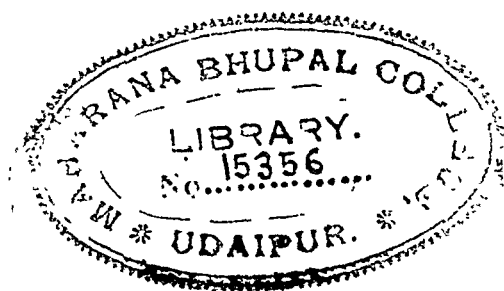
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EXCHANGE RATES AND THE INTERNATIONAL MONETARY FUND

by

LLOYD A. METZLER¹

Formerly of Division of Research and Statistics, Board of Governors

The International Monetary Fund, conceived at Bretton Woods in 1944, commenced operations on March 1, 1947, after having negotiated with member countries an initial pattern of international exchange rates. These negotiations, which proceeded within an agreed framework laid down in the Fund's Articles of Agreement, represented a marked advance over previous attempts at securing coordinated action in the international monetary field. It is the purpose of this paper to assess the results of this new procedure in the highly important and complex field of exchange relations.

METHODS OF SETTING EXCHANGE RATES

Exchange Rates after the First World War. A major factor in the international economic disturbances and frictions which followed the First World War was the unbalanced condition of exchange rates. During the war years and in the period immediately following the war, most currencies were divorced from gold, and since exchange controls had to a considerable extent been abandoned at the close of the war, exchange rates were subject to substantial fluctuations. These exchange fluctuations created opportunities for speculative capital movements which frequently tended further to upset the balance. As a result, in many countries the actual exchange rates differed widely from those which would have provided a balanced condition between the supply and demand for foreign exchange. When the important trading nations finally stabilized their exchange rates by returning to the gold standard, no systematic attempt was made to remove the discrepancies which had developed. Instead, each individual country simply resumed the purchase and sale of gold at a price

¹ A number of people assisted in preparing this paper. Miss Florence Jaffy of the Division of Research and Statistics of the Board of Governors of the Federal Reserve System compiled the parity estimates. Miss Leila N. Small of the Institute for International Studies at Yale University lent helpful assistance throughout the preparation of the paper. The final manuscript was read and criticized by Mr. Walter R. Gardner of the International Monetary Fund and Mr. J. Burke Knapp, Assistant Director of the Division of Research and Statistics of the Board of Governors. The author wishes to thank all of these people without implicating any of them.

which was determined, for the most part, by unilateral action. Too much attention was paid in this process to the superficial aspects of the gold standard, such as the commitment of each country to redeem its currency in gold, and too little attention was paid to the more fundamental fact that the gold standard is a means of establishing or stabilizing the relative values of different currencies in international trade.

The results of the unilateral and haphazard return to the gold standard after the first war are well known and need not be repeated in detail here.¹ It is now generally recognized that the relative values at which a number of currencies were stabilized failed to reflect the movements of prices and other economic disturbances which had been brought about by war. Perhaps the most conspicuous of these discrepancies was the overvaluation of the pound sterling. When the United Kingdom made the pound sterling convertible in 1925, the prewar rate of exchange between the pound and the dollar—approximately \$4 87—was re-established. Since prices and costs had increased more in the United Kingdom than in the United States and since a number of the most important British export trades, such as coal and textiles, were meeting increased competition from other sources, the prewar value of the pound was no longer appropriate. A lower price for the pound in other words would have contributed to equalizing Britain's supply of foreign exchange with her demand. In the long run the effects of overvaluation (1) the pound might have been offset by a vigorous attack upon the cost structure through rationalization and modernization of British industries. But this is a time consuming process which could not solve the immediate problems confronting the British exporters at the time Britain returned to the gold standard. In any event, the rationalizing and modernizing of industry did not proceed rapidly enough to avoid a serious depression during the twenties in the British export trades.

The difficulties confronting the United Kingdom as a result of the initial stabilization of the pound were subsequently aggravated by the stabilization of the French franc at a price which, from some points of view, appeared to be too low. In the case of the French franc, the problem of returning to the gold standard was complicated by speculative capital movements. Prices and costs had increased so much both during the war and in the postwar years that a return to the old parities between the

¹ See League of Nations, *International Currency Experience: Lessons of the Interwar Period* (1944) Chap. I.

franc and other currencies was clearly out of the question. The external value of the franc of course declined as prices increased within the country. Moreover, since the period of postwar inflation in France was also a period in which large holdings of money assets were being transferred from Paris to London and other financial centers, the depreciation of the franc was considerably greater than the relative decline in its purchasing power. Between November 1918 and July 1926 the price of the franc in American currency declined from 18.37 cents to 2.47 cents. Later, when internal financial conditions in France had improved, a repatriation of French capital occurred, and the franc accordingly increased in value. When the French currency was finally stabilized in 1926 and 1927, however, the price of the franc in terms of either dollars or pounds sterling was somewhat low relative to its purchasing power in France. Thus France became a cheap market in which to buy, while the United Kingdom became a relatively expensive market.

Similar mistakes were made in other countries, but their effects upon world trade and finance were less important than the effects of the return to the gold standard in France and the United Kingdom. All of this is well known and would not need to be repeated here except for the bearing which it has on the problem of exchange rates in the present period of readjustment. As a result of the planless manner in which exchange rates were stabilized after the First World War, the balances of payments of many countries were subjected to continuous stresses and strains throughout most of the decade of the twenties and in the early thirties. While some of these disturbances were an inevitable consequence of the war, many of them could have been avoided by a more systematic approach to the problem of postwar exchange rates.

Exchange Rates after the Second World War. The plan evolved at Bretton Woods for setting initial exchange rates, and for subsequent adjustments in exchange rates through the International Monetary Fund, offers a striking contrast to the stabilization of currencies after the First World War. Whether the contrast in final results will be as striking as the contrast in method of approach, however, depends almost entirely upon how the new international monetary organization is administered, and upon the cooperation which the Fund receives from member countries.

Unlike the unilateral and uncoordinated stabilization of currencies during the twenties, the plan set out in the Articles of Agreement of the Fund created an opportunity for establishing relative exchange rates by mutual

agreement among the members of the Fund. The Fund Agreement provided that unless either the Fund or the member country concerned objected, the initial exchange rate at which the Fund commenced operations in a particular currency should be the rate prevailing 60 days before the Agreement went into effect. If either the member country concerned or the Fund regarded the rate prevailing on that date as unsatisfactory, however, a different rate was to be established by agreement between the member and the Fund. The feature of this procedure which distinguishes it from the stabilizing procedure adopted after the First World War is the explicit recognition of the fact that exchange rates, or gold parties, are a matter of international interest and cannot be determined satisfactorily by unilateral action.

In September 1946 Mr. Camille Gutt, the Managing Director of the Fund, issued a call to all member countries for information concerning their exchange rates, and after an extended period of study and discussion, announcement was made in December 1946 of the initial exchange rates at which the Fund would begin operations. The purpose of the present paper is to discuss some of the problems which were involved in this setting of exchange rates, and to describe the approach of the Fund to solving these problems.

The rates finally agreed upon were, in every case, the rates existing at the time the Fund made its call for information. In other words, no changes were made in the existing pattern of exchange rates when the Fund commenced operations. This does not mean, however, that the Fund regards all of the present exchange rates as long-run rates, or that it does not contemplate changes in some of these rates in the future. In their first report, published in September 1946, before the initial rates were agreed upon, the Executive Directors of the Fund made a statement on this question which is so important that it is worth quoting at some length.¹

We recognize that in some cases the initial par values that are established may later be found incompatible with the maintenance of a balanced international payments position at a high level of domestic economic activity. Because the entire world is in need of goods, some countries may maintain foreign exchange values for their currencies which are not for the time being a great handicap to the sale of their exports but which prove to be too high when production is revived all over the world and the immediate shortage of import goods is in large part met. Such countries may later find difficulty in selling sufficient exports to pay for their needed imports. When this

¹ *First Annual Report of the Executive Directors of the International Monetary Fund* (Washington, D. C., September 1946), p. 12. Italics added.

answer these questions, it will be necessary to consider not only the exchange rates which have been announced by the Fund, but also the present exchange rates of certain member countries for which no rates have yet been determined, as well as the rates of a number of nonmember

INITIAL EXCHANGE RATES ANNOUNCED BY THE INTERNATIONAL MONETARY FUND COMPARED
WITH PREWAR EXCHANGE RATES FOR SELECTED COUNTRIES
(In cents per unit of foreign currency)

Country	Initial rate announced by Fund	Rate in base period October 1936-June 1937 ^a
Belgium	2 28	3 37
Canada	100 00	100 04
Chile	3 23	5 17
Colombia	57 14	57 06
Costa Rica	17 81	*16 26
Cuba	100 00	*92 92
Czechoslovakia	2 00	3 51
Denmark	20 84	21 91
Egypt	413 30	503 23
France	0 84	*2 88
India	30 23	37 07
Iran	3 10	6 07
Mexico	20 60	27 75
Netherlands	37 70	54 55
Norway	20 15	24 66
Peru	15 38	*25 07
Turkey	35 71	80 00
Union of South Africa	403 00	485 70
United Kingdom	403 00	490 81
Venezuela	29 85	*26 53

^a Unless otherwise indicated

^b 1936 annual average

^c July-December 1937 average

^d 1938 average

^e 1936-37 average

Sources: *Federal Reserve Bulletin*, *Foreign Commerce Weekly* and Schedule of Exchange Rates issued by the International Monetary Fund.

countries. Information concerning such rates in both the base period and the month of December 1946 is presented in the table on page 7.

In comparing the present pattern of exchange rates with the pattern prevailing in the base period it is convenient to divide all countries into three groups (1) the countries occupied by the German army, (2) the

countries in the British Commonwealth of Nations, and other countries such as Sweden and Argentina which followed a policy before the war of stabilizing the values of their currencies in terms of the pound sterling; (3) the Latin American countries, exclusive of Argentina. Although this classification is not exhaustive, a consideration of these three broad groups will nevertheless serve to indicate the main developments in the movement of exchange rates since 1937.

EXCHANGE RATES OF SELECTED NONMEMBER COUNTRIES AND OF MEMBER COUNTRIES FOR WHICH NO OFFICIAL FUND RATES HAVE BEEN ANNOUNCED
(In cents per unit of foreign currency)

Country	Rate in December 1946 ¹	Rate in base period October 1936-June 1937 ²
Nonmember countries:		
Argentina.....	29.77	32.72
Australia*.....	321.07	391.08
New Zealand.....	322.36	394.01
Sweden.....	27.82	25.30
Switzerland.....	23.36	22.90
Member countries for which rates have not been announced:		
Brazil.....	5.41	6.13
Greece.....	0.02	0.90
Italy.....	³ 0.26	⁴ 5.26
Poland.....	1.00	18.90
Uruguay.....	56.27	⁴ 79.47

¹ Unless otherwise indicated.

² February 1947.

³ 1937 average.

⁴ 1936-37 average.

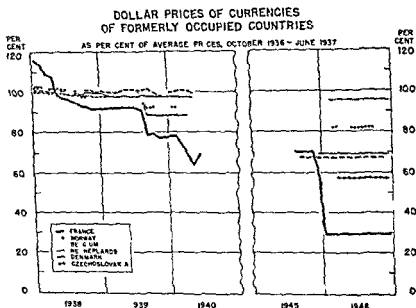
* Admitted to membership on Aug. 5, 1947, after this analysis had been completed.

Sources: *Federal Reserve Bulletin* and *Foreign Commerce Weekly*.

The Countries Occupied by Germany. Among other countries included in the tables, Belgium, Czechoslovakia, Denmark, France, the Netherlands, and Norway were occupied by the Germans and their currencies were cut off from the dollar and sterling markets during most of the war years. In several instances, the postwar exchange rates of these countries therefore represented a more or less complete break with the past. When the period of occupation came to an end, there were no customary or accepted rates which could be used as a guide to the new dollar and sterling rates for these currencies. Each country had to decide for itself, perhaps in consultation with other members of the United Nations, what

its exchange rate would be. As a result of German expenditures in the occupied countries prices and costs in most of them had risen during the war more than they rose in the United States or the United Kingdom, and largely for this reason the rates at which the former occupied countries began doing business in dollars and pounds sterling were usually well below prewar rates.

The movement of dollar exchange rates in these countries since 1937 is shown in the accompanying chart. The chart reveals a sharp contrast

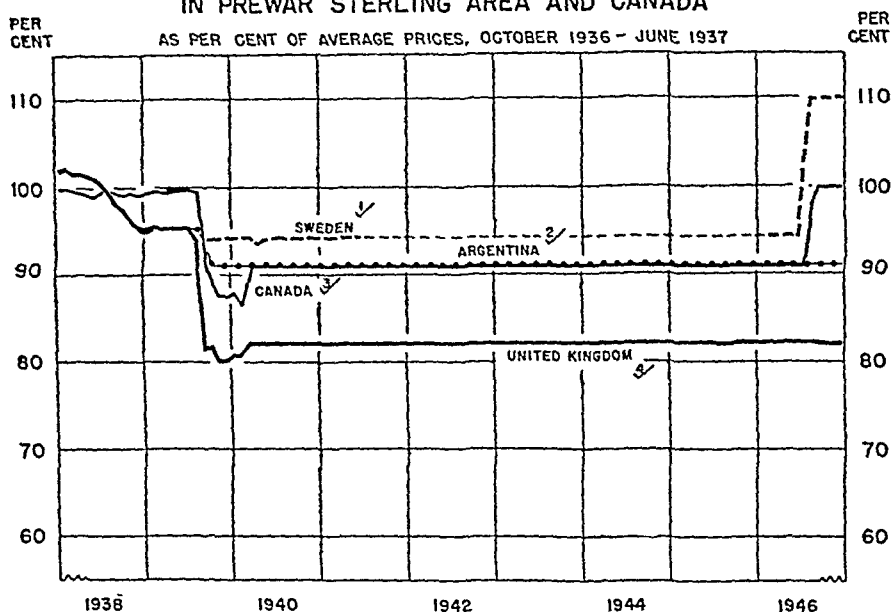


between post-war and prewar rates both with respect to the level of such rates and with respect to exchange movements. In the period from 1938 to the time of invasion the dollar rates in most of these countries were subject to moderate fluctuations the general tendency being downward. In the period since the occupation came to an end, on the other hand, fluctuations in exchange rates have been confined within narrow limits by means of general exchange controls. The pre invasion depreciation in Norway, Denmark, the Netherlands and France is attributable partly to capital flights and a general fear psychology and partly to the depreciation of the pound sterling which will be discussed later.

The Prewar Sterling Area. Index numbers of dollar exchange rates for the United Kingdom and Canada, and for two non-British countries formerly in the sterling area, are shown in the accompanying chart. The chart covers the period 1938 through 1946. As in the case of the occupied countries, the inflexible exchange rates of the early postwar period are in sharp contrast with the exchange fluctuations of the years prior to 1940.

DOLLAR PRICES OF SELECTED CURRENCIES IN PREWAR STERLING AREA AND CANADA

AS PER CENT OF AVERAGE PRICES, OCTOBER 1936 - JUNE 1937



¹ No rates were certified between June 14, 1941, and Feb. 5, 1946. During this period the official Stockholm selling rate was 4.20 kronor to the dollar (23.8095 cents per krona), as indicated by the thin broken line.

² Official rate.

³ Beginning March 1940, official rate.

⁴ From March 1940 through June 1945, official rate.

The most striking feature of exchange movements in the prewar sterling area is the general depreciation which occurred between June 1938 and September 1939. Since the other members of the sterling area had stabilized their currencies relative to the pound sterling in the period prior to 1938, the depreciation in the sterling area during the immediate prewar period may be considered largely in terms of the British currency. Many reasons have been given for the depreciation of the pound. As with the countries occupied by Germany, the flight of capital was undoubtedly

a contributing factor. It seems probable, also, that in the face of this capital movement the British authorities may have decided to relax the efforts at stabilization which they had been making through their Exchange Equalization Account. No doubt the depression in the United States was also partly responsible for the depreciation of sterling. In any event, the pound sterling depreciated steadily in terms of dollars throughout the second half of 1938. With the outbreak of war in September 1939, extensive exchange controls were introduced and the pound sterling was sharply depreciated by the control authorities from more than \$4.60 to \$4.03. During the early period of exchange control, a free market in pounds sterling developed at rates considerably below the official rate, but by the end of 1940 the free rate was approximately the same as the official rate, and both the free rate and the official remained stabilized throughout the war years. After the war, the single rate of \$4.03 was maintained and was accepted as the initial rate for the United Kingdom by the International Monetary Fund.

The prewar changes in the value of the currencies of other British countries were almost identical with the changes in the pound sterling. With the exception of Canada, these countries continued to maintain stability of their currencies relative to the pound sterling, and the dollar prices of their currencies therefore declined with the fall in the price of sterling. The Canadian dollar, however, remained close to parity with the U. S. dollar until the United Kingdom depreciated its currency sharply at the outbreak of war. Canada then followed part way by depreciating its currency about 10 per cent relative to the American dollar. Between June 1938 and March 1940, the decline in dollar prices of the currencies of Australia, India, New Zealand, the Union of South Africa, and the United Kingdom was approximately 18.5 per cent, whereas the decline in the price of the Canadian currency in the same period (based upon the official rate in 1940) was less than 10 per cent. As in the case of the pound sterling, the depreciated rates were subsequently maintained throughout the war years by means of exchange controls. Except for the Canadian dollar, which was appreciated to its former parity with the American dollar during 1946, the fixed rates established during the war were also maintained after the end of the war, and for India and South Africa they are the official rates of the Monetary Fund.

The non-British members of the sterling area, including Argentina and the Scandinavian countries, also permitted their currencies to depreciate during 1938, in conformance with the price of the pound sterling, but when

war began and the pound sterling was rapidly depreciated, these countries followed only to a limited extent and the over-all depreciation of their currencies between June 1938 and 1940 was therefore somewhat smaller than the depreciation of the pound. The exchange rates of two of these countries, Denmark and Norway, have been discussed above in connection with the occupied countries. The other two countries, as the chart indicates, both had dollar rates at the end of the war which were substantially the same as the rates prevailing in 1940. In the case of Argentina, a slight appreciation occurred in the special export rate in 1944, but the official rate remained unchanged, and since the end of the war no alterations have been made in the dollar price of the Argentine peso. In the case of Sweden, the dollar price of the krona was adjusted upward in 1946 by more than 15 per cent, and this adjusted rate is the one which is currently being used.

The Latin American Countries. Movements of Latin American exchange rates are extremely difficult to describe because of the multiple currency systems which prevail in many of these countries. When the Argentine rate was discussed above in connection with the sterling area, movements of the official rate alone were analyzed and the multiplicity of rates was disregarded. This is a somewhat dangerous procedure, for Argentina, like many other countries of South and Central America, has a number of different rates, the particular rate in any given instance depending upon the use to which the foreign exchange is to be put or on the source from which it is derived.

There is no need, at this point, to give a detailed description of the multiple exchange system. Its origin, for the most part, was in the Great Depression of the thirties, when the rapid and pronounced decline in raw material and agricultural prices created serious balance of payments problems for the Latin American exporters of such products. For a number of reasons, many of these countries felt that outright exchange depreciation would not improve their balances of payments. Depreciation would have made it possible to reduce the foreign exchange prices of their exports while maintaining the domestic prices received by producers, but since their exports consisted largely of products for which the demand was relatively unresponsive to changes in prices, it was widely believed that price concessions would reduce rather than increase the amount of foreign exchange accruing to the Latin American countries. If a 10 per cent reduction in the price of coffee, for example, would have resulted in an in-

crease of Brazilian exports of only 5 per cent, the amount of foreign exchange derived from coffee sales would obviously have been smaller after the price reduction than before. This situation was regarded as typical of many Latin American exports, and a reduction in foreign prices, made possible by currency depreciation, was therefore not considered to be a solution to the shortage of foreign exchange.

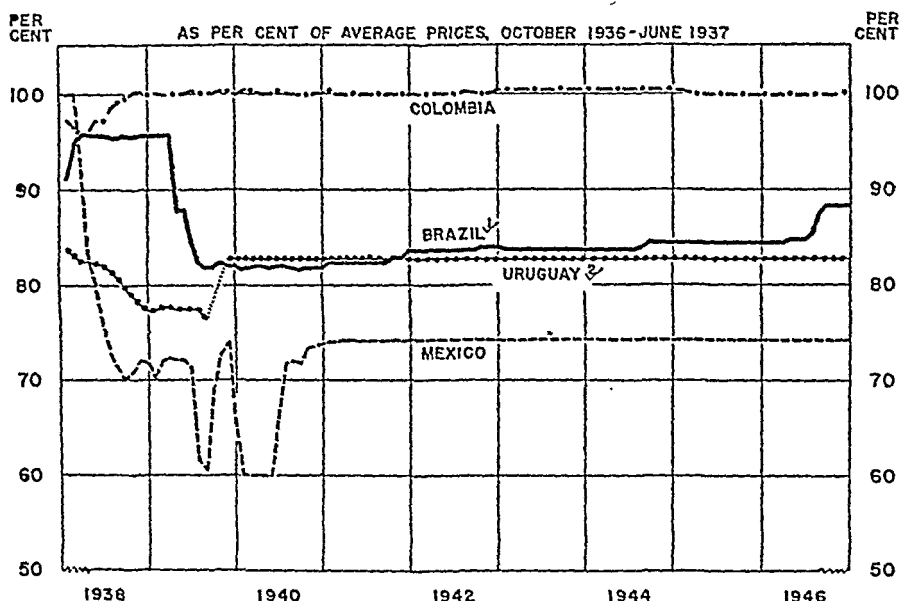
The situation was further complicated, in many countries, by the fact that substantial amounts of foreign exchange were required by governments to make payments on foreign debts denominated in foreign currencies. Currency depreciation, in such cases, would not have reduced the demand for foreign exchange but would merely have increased the price which the Latin American countries had to pay in their own currencies to service their foreign obligations. While this budgetary problem was essentially an internal one, there is nevertheless considerable evidence that it played an important part in the decision of some countries to adopt measures other than currency depreciation when confronted with deficits in their balances of payments.

In the end, the balance of payments problems during the depression were temporarily solved, or postponed, by a widespread adoption of exchange controls. Foreign exchange acquired by exporters had to be sold to a central authority, at fixed prices, and importers, in turn, purchased their needed exchange at rates prescribed by the central authority. Having become monopolists in their foreign exchange markets, the governments of many of the Latin American countries found it profitable or desirable to set up schedules of varying rates for the purchase and sale of foreign currencies. Although the details of these multiple exchange systems differed considerably from one country to another, certain features were nevertheless common to almost all of them. Preferential treatment was accorded, in the first place, to governmental agencies which needed exchange to service their foreign obligations. Dollar or sterling exchange was usually made available or acquired for this purpose, at the lowest price in the schedule of rates. Favorable prices were also provided for importers of commodities which were regarded as necessities, with correspondingly more expensive rates established for luxury imports. A similar schedule of rates usually prevailed in the purchase of foreign exchange from exporters. High prices were paid for foreign exchange arising from the export of products which the government wished to encourage, and somewhat lower prices were paid for exchange arising from other exports.

Thus, in effect, the Latin American governments frequently depreciated their currencies for some purposes such as luxury imports and certain classes of exports, but left the rates at the old levels for other purposes, such as government debt service and the import of certain necessary items.

In all this maze of rates it is not feasible to give a brief description of what happened to the external value of a country's currency in the period between 1938 and 1946. The best that can be done, in many instances,

DOLLAR PRICES OF SELECTED CURRENCIES IN LATIN AMERICA



Beginning April 1939, free rate.

² Beginning January 1939, controlled rate. No quotations Sept. 1 through Nov. 28, 1939.

is to select one or two rates which seem to be most representative and to describe the movements of these rates. In following this course, however, it is well to remember that for many of the Latin American countries no single exchange rate can possibly represent a complete picture of exchange developments. Movements of some of the more important exchange rates for a selected group of Latin American countries are shown in the accompanying chart. It is apparent from the chart that the prewar exchange movements for the Latin American countries were much less uniform than the movements of sterling area currencies. While the general

tendency in 1938 and 1939 was a downward adjustment relative to the dollar, there were exceptions to the tendency, as the line for Colombia indicates. Some Latin American currencies, such as the Uruguayan and Argentine pesos, were clearly influenced by the depreciation of sterling, but the timing of the downward movement in others is quite out of line with the depreciation of the British currency. This suggests that other influences, such as the American depression of 1937 and 1938, may have been responsible for some of the immediate prewar depreciation in the Latin American currencies.

Like the European exchange rates, the Latin American rates have been rigidly controlled both during the war years and in the postwar period. This means, in general, that any depreciation of present dollar prices of these currencies compared with the dollar rates in the base period October 1936-June 1937 is attributable to the depreciation which occurred prior to 1941, and cannot be directly ascribed to changes in prices and costs which occurred during the war.

Summary of Exchange Rate Movements. The description presented above of exchange rate adjustments since 1937 naturally shows a considerable diversity among countries. Despite this diversity, however, certain more or less general tendencies stand out both in the countries which are members of the Fund and in nonmember countries. Since these general tendencies are important in the discussion of postwar exchange rates, a brief summary may be given here.

For a period of slightly less than one year after the stabilization agreement was made between the United States, the United Kingdom, and France in 1936, fluctuations in exchange rates remained within relatively narrow limits. Except for certain Latin American countries and countries in Eastern Europe, exchange controls were not widespread at this time, and exchange rate fluctuations were controlled largely by indirect means such as equalization accounts. Since equalization accounts or stabilization funds are known to be relatively ineffective against a pronounced and persistent discrepancy between the supply and demand for foreign exchange, it seems likely that the stability of exchange rates in this period was indicative of a generally balanced condition in the foreign exchange markets. This is one of the reasons why the period from October 1936 to June 1937 was chosen as a base period for the comparison of prewar and postwar exchange rates.

Beginning in the middle of 1937, the French franc slowly depreciated

in terms of dollars, and this movement was followed, in the middle of 1938, by a gradual but persistent depreciation of the pound sterling. The threat of war and the resulting capital flights, as well as the depression in the United States, were no doubt contributing factors in the depreciation of both the franc and the pound. After the outbreak of war, the pound sterling was sharply depreciated to \$4.03 (official rate). In France, the movement was similar; the franc depreciated at irregular intervals until it had reached a level of approximately 2 cents at the time of the German invasion. It was pointed out above that the depreciation of the pound sterling, and to a lesser extent the depreciation of the French franc, had far-reaching effects on other exchange rates. Although not all of the currencies of South and Central America shared in the movement, there was a general tendency for these currencies, like the European currencies, to fall in value relative to the dollar during the period between 1938 and 1940. The period between 1938 and 1940 was thus a period of fluctuating exchange rates, the general tendency being a reduction in currency values relative to the dollar. In most countries, these currency fluctuations were finally stopped after the outbreak of war by the introduction of exchange controls, and thereafter the pattern of exchange rates was relatively stable throughout the war years.

Stability of exchange rates did not end with the end of the war. For the most part, the exchange controls which were devised in the early war years have been continued in operation, and exchange fluctuations have been confined within relatively narrow limits. Except for the Swedish krona and the Canadian dollar, which were appreciated by official action in 1946, the present pattern of exchange rates in the sterling countries is substantially the same as the pattern prevailing in 1940. Similarly, among the countries of Latin America, present dollar exchange rates are broadly the same as the rates prevailing in 1940 or 1941, and the stability which is characteristic of postwar rates in other countries also characterizes the Latin American rates. This means that the rates announced by the International Monetary Fund have made allowance for war-induced changes in international economic conditions only to the extent that the 1940 rates anticipated wartime economic developments.

In the countries occupied by the German army, postwar exchange rates are, in most instances, considerably different from the 1940 rates. A different set of rates was inevitable, since the wartime rise in prices was considerably greater in these countries than in most other nations. It

seems doubtful however that the rates established represented the results of any careful and deliberate study of changes in economic conditions brought about by the war. The speed with which the new rates had to be set up precluded such studies and in any event there were so many uncertainties regarding the economic future that political considerations and considerations of expediency inevitably played a dominant part.

This in brief is the evolution of present exchange rates for a selected group of countries. A general description of exchange rate movements has been given because it was believed that such a background would be helpful in discussing the appropriateness of present rates. In any comparison of present rates with prewar rates it is useful to know how the rates got where they are from the prewar level. This indeed is an essential part of a judgment as to the appropriateness of existing rates. It would obviously be impossible within the limits of a paper such as this to indicate how each individual rate is likely to affect the future course of world trade. An attempt is made below however to suggest certain probable consequences of the present exchange rate pattern as a whole.

EXCHANGE RATES AND PRICES

The Purchasing Power Parity Theory. One of the factors which must be taken into account in any discussion of present currency values is the general rise in prices and costs which was brought about by the war. Even in countries where price controls were maintained throughout the war years the inflationary effects of large government purchases of goods and services could not be entirely avoided. If these price increases had been uniform throughout all countries no particular difficulties would have arisen as far as foreign trade is concerned. A casual glance at a few statistics of prices however will convince the reader of the enormous disparity which has developed between the price changes in one country and those in another. In France for example wholesale prices have increased about 700 per cent above the prewar level compared with increases of 200 per cent in Czechoslovakia, 185 per cent in Mexico, and 45 per cent in Australia.* In view of these discrepancies it is obvious that relative changes in the internal purchasing power of different currencies will have substantial effects on the course of international trade unless they are offset by corresponding changes in exchange rates.

* These figures, taken from the appendix table on p. 46 represent a comparison of prewar prices with prices prevailing at the end of 1946.

After the First World War, the discrepancies between movements of price levels in different countries were equally great, and since exchange rates in many countries were uncontrolled, these changes in relative purchasing power exerted a considerable influence on exchange rates. Indeed the changes in prices and costs were so striking by comparison with other economic changes that there was a tendency to explain the observed movement of exchange rates entirely in terms of changes in relative purchasing power. This was the doctrine of purchasing power parity which enjoyed a considerable popularity among economists in the 1920's. The theory of purchasing power parity, in its simplest form, may be illustrated by means of a numerical example.

Suppose that in some initial period, when international payments are in a balanced condition, the exchange rate between the dollar and the pound sterling is $\$4.50 = \text{£}1$. And suppose that as a result of a war, prices and costs in the United States increase uniformly to a level just twice their former level, while prices and costs in the United Kingdom rise to three times their former level; in other words, the index of prices in the United States increases to 200 while the index in the United Kingdom increases to 300. According to the purchasing power parity doctrine the internal purchasing power of the dollar at the close of the war is one-half of its former level, and the internal purchasing power of the pound is one-third its former level. Hence, it is argued, in order to preserve balanced trade relations between the two countries, the price of the pound, in terms of dollars, must drop to two-thirds of the old price, or to $\$3 = \text{£}1$. More generally, the so-called parity exchange rate is equal to the price of the pound in the base year, in terms of dollars, multiplied by the ratio of the price index in the United States to the price index in the United Kingdom.

The virtue of the parity rate is that it preserves the earlier real exchange ratio between the goods and services of one country and the goods and services of another. To see why this is true, suppose in the above example that an American product, X , before the war sold for $\$1.50$, while a British product, Y , sold for $\text{£}1$. At the old exchange rate, American purchasers of Y would have had to pay $\$4.50$ per unit, and the price per unit in the United States would thus have been three times the price of a unit of the American product, X . We may assume, now, that as a result of the war inflation the cost of production and the price of each commodity, in the currency of the selling country, rises according to the general price rise. In other words, the selling price of X , the American

product, is doubled while the price of Y , the British product, is tripled, the new price of X is \$3.00, and the new price of Y is £3. At the parity exchange rate of \$3 = £1, the American price of the British product is thus \$9. Once again, therefore, the unit price of the British product, in dollars, is three times the unit price of the American product.

Since the relative price of British goods compared with the price of American goods, is the same after the inflation as before, the general rise in prices will not affect the import of British goods, unless tastes or conditions of production and trade have changed, the physical volume of British imports will be the same as in the prewar situation, and only the monetary units in which these imports are measured will have changed. Likewise, in the United Kingdom the sterling price of United States goods relative to the price of British goods will remain the same as before the inflation and a presumption exists that the physical volume of British imports will be unchanged.

Criticisms of Purchasing Power Parity While adoption of the parity rate is desirable in the solution of some problems it may be quite undesirable in the solution of others for in some circumstances it may be necessary to change the real terms of trade between countries in order to restore a balanced condition in international trade. If this is true, the so-called 'equilibrium' rate of exchange will differ from the parity rate. Suppose, for example, that the base period chosen for the calculation of a parity rate in the numerical example above had been a period in which the United States had a deficit in its balance of payments. Other things being equal the parity rate between the dollar and the pound, by perpetuating the real terms of exchange between British and American goods, will likewise perpetuate the deficit. Only the money units in which the deficit is measured will have changed. In order to restore a balanced condition, exports of the United States must be encouraged, and imports reduced, by means of a depreciation in the value of the dollar below the parity rate. Thus, if the base period is one of disequilibrium the parity rate after the price rise has taken place will not be the same as the rate which will establish equilibrium in a country's balance of payments.¹

Other factors will also create a disparity between the parity rate and the equilibrium rate. Consider for example, the effects of capital movements. Suppose that in the prewar base period there were no capital move-

¹ On all of these criticisms of parity calculations cf. Gottfried Haberler, 'The Choice of Exchange Rates after the War', *American Economic Review*, June 1945, pp. 311-15.

ments, and that after the rise in prices has taken place the United States expects to make extensive loans to the United Kingdom. Assuming that the base period was one of balanced trade without capital movements, the parity rate will also establish a balanced condition, in the absence of capital movements, after the price rise has taken place. But if the United States is to make large foreign loans an export surplus can and should be allowed to develop in the United States balance of trade, and in order to bring about such an export surplus, the exchange rate for the dollar must be depreciated below the parity rate. Accordingly, we find once more a difference between the parity rate and the equilibrium rate. Changes in tastes or in methods of production will create a similar difference between the two rates. If, because of such changes, the American demand for British goods has increased during the time interval between the base period and the period of comparison, the parity rate, by re-establishing the earlier ratio of exchange between British and American goods, will lead to a deficit in the United States balance even though the initial period was one of equilibrium. In order to make the supply of foreign exchange equal to the demand, the value of the dollar in this case must again be depreciated below the purchasing power parity rate.

Movements of output and employment are also important in judging the validity of parity calculation, for these movements bring with them substantial changes in the demand for imports. In times of comparative economic stability, the effects of changes in employment upon the equilibrium level of exchange rates can perhaps be neglected, but in a period such as the prewar decade of the thirties, when movements of output and employment were the dominant feature of economic activity, large discrepancies may develop between the parity exchange rates and the rates which would restore equilibrium in a country's balance of payments. To see why this is true, suppose that international trade is initially in equilibrium, and that the level of output in a single country is increased while output in other countries remains unchanged. As a result of the higher output in the expanding country, the demand for imports rises; a greater volume of imported materials is required to produce the higher level of output and, at the same time, consumers with higher incomes increase their purchases of foreign commodities. The expanding country is faced with a deficit in its balance of payments which will normally lead to a depreciation of its currency even if there are no changes in sellers' prices either at home or abroad. In other words, a relative expansion of output

in one country alters the equilibrium exchange rate in a way which does not correspond to the movement of prices in extreme examples the equilibrium exchange rate can be altered with no changes in prices at all

The foregoing criticisms of purchasing power parity have all considered the most favorable case for the parity theory in which prices and costs rise or fall uniformly within any given country. Although this implied assumption may be justified to a considerable extent in periods of hyperinflation the practical application of the parity doctrine is usually complicated by differences in the degree of price rise or fall within each country. When some prices or costs rise more rapidly than others within the same country no simple comparison between price movements in different countries can be made. The best that can be done is to use an average or index number of price changes and if the discrepancies in price movements as between different commodities in the same country are large such an index number at best is only a rough indication of the change in the value of the monetary unit. Moreover since several types of price index numbers are usually available the calculation of parity rates is not a simple procedure but involves a considerable element of judgment as to what prices and costs are important for a country's balance of payments.

Considering this element of judgment it is not surprising that the selection of an appropriate price index has been one of the most controversial topics concerning purchasing power parity. Indeed in some cases the difficulty of selecting an index has been the most important single cause for the disrepute into which the parity theory has fallen. It has been said, on the one hand that the prices of commodities which do not enter into international trade are irrelevant since these prices at most have only an indirect influence on a country's balance of payments. And on the other hand it has been argued that international prices or the prices of goods which enter into international trade cannot be used because these prices necessarily adjust themselves to changes in exchange rates. In other words it has been argued that prices for commodities which have a world market such as many agricultural products and raw materials necessarily adjust themselves within a given country to any change in that country's exchange rate.

To clarify this point suppose that Canada is an exporter of such a product *Z* to the United Kingdom. If the exchange rate between Canada and the United Kingdom is \$4 = £1 and if the British price of *Z* is one-fourth pound per unit the Canadian price will necessarily be \$1.00 since Canada is an exporter of *Z* and its price is governed by the world price

Now suppose the exchange rate is altered to $\$5 = \pounds 1$. If the British price of Z were to remain unchanged, the price in Canadian currency would rise to $\$1.25$, and the relative change in the price of Z between the two countries would conform exactly to the change in the exchange rate. Since this type of behavior is characteristic of many commodities which are sold in competitive international markets, it has been said that the prices of internationally traded goods cannot be used in parity calculations. To include such prices, it is said, imparts a bias in the parity calculations which tends to justify the existing exchange rate, whatever it may be. If prices of domestic goods cannot be used in the calculations because they are irrelevant, and if prices of international goods cannot be used because they always adjust themselves to movements of exchange rates, it must seem, as it did to some economists, that the theory of parity has little substance, and must be replaced by other methods of judging exchange rates.

One proposed solution of the price dilemma is a substitution of data on unit costs of production for price data. In other words, it has been suggested that parity rates might be computed from indexes of costs rather than price indexes. If adequate information concerning costs were available this would no doubt be a useful approach, for the cost figures would be free, to a considerable extent, of some of the most glaring logical problems which beset the use of price indexes. Unlike some price comparisons, it could hardly be said that parity calculations based upon costs of internationally traded goods would inevitably justify existing exchange rates, for costs of production do not adjust themselves as quickly or as completely to a change in exchange rates as do the prices of some international goods.

Although cost comparisons would obviously be preferable to price comparisons in some respects, it is clear that the use of cost data in the parity calculations could also present some new difficulties. If costs of production for a given product vary as between different firms, for example, which firms' costs are to be included in the index of general costs? And if the costs for a particular firm vary according to the level of output, at what level of output should the parity calculations be made? These questions will be recognized as the same difficult questions as those which arose in connection with the tariff to equalize costs of production at home and abroad, and the answers are no less difficult to find now than they were with regard to the tariff.

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international trade, cannot be used because these prices necessarily adjust themselves to changes in exchange rates. In other words it has been argued that prices for commodities which have a world market, such as many agricultural products and raw materials, necessarily adjust themselves, within a given country, to any change in that country's exchange rate.

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The selection of cost data for parity calculations, like the selection of

price index numbers involves a more or less arbitrary judgment, and the resulting parity rates are thus to be regarded as rough approximations to the effects of monetary inflation or currency values, and not as final answers to the problem of exchange rates.

Perhaps the principal advantage of cost comparisons over price comparisons is that costs are likely to represent more or less permanent changes in monetary values whereas prices may reflect the transitory effects of inflation. At the close of a period of general inflation, it is possible that prices may have increased considerably more than wage rates and other costs. In this event a short recession may cause a significant reduction in prices without a corresponding reduction in costs. In many instances, the permanent effects of inflation on the value of a currency will accordingly be measured more accurately by cost changes than by price movements.

Despite the obvious advantage of cost comparisons, it has been impossible to make such comparisons in the present study. Accurate and comprehensive data of unit costs of production are seldom published even in countries with as much economic data as the United States and the United Kingdom possess and in other countries having less advanced statistical services cost information is virtually nonexistent. Changes in wage rates, the most important element of unit costs, might be substituted for the unavailable unit cost figures but here again the investigation is confronted with a lack of data. For general indexes of wages are much less common than are general price indexes. In considering the effects of war inflation on relative currency values it has therefore been necessary to employ only price data even though a comparison of wage changes or changes in other costs of production would have been a useful supplement.

Parity Rates in Peace and War. The arguments against purchasing power parity appeared to be so overwhelming during the interwar period that many economists abandoned the theory entirely. It is a curious fact, nevertheless, that despite its abandonment in principle the theory continues to be widely used in practice as a means of judging the pattern of postwar exchange rates. What are the reasons for this divergence between theory and practice? Why is the purchasing power parity doctrine generally discredited and at the same time widely employed? The explanation of this inconsistency the writer believes is in the fact that the parity theory is not a *general* theory of exchange rates, and that it has been applied, in the past, to conditions for which it was not intended. The

parity doctrine was used primarily for the purpose of explaining the movements of exchange rates after the First World War, and as a theory of postwar exchange rates it retains much validity notwithstanding the arguments against it. The theory was discredited not because it was unimportant or irrelevant in the explanation of exchange rates after the war, but because attempts were later made to use it in the explanation of exchange rates under more normal conditions for which it was not appropriate.

The factors which should be taken into account in setting exchange rates after a period of war-induced inflation are obviously quite different from those which affect exchange rates under more normal conditions. In particular, wartime movements in prices and costs are unusually large, and the discrepancies in price movements between different countries are likewise large. Examples of these discrepancies, taken from wholesale price statistics, were presented at the beginning of the present discussion of prices and exchange rates. Equally great discrepancies appeared during the war in retail prices. Although retail price movements did not always agree with wholesale price movements in any particular country, the order of magnitude of the two types of price change was in most instances roughly comparable, and the changes in prices, whether measured by one index or the other, were so large and so different as between one country and another that they immediately impress the observer as one of the most important influences on relative currency values.

Perhaps even more important than the amplitude of the price and cost movements is the fact that such movements, in times of war, tend to be more or less independent of changes in output and employment. Indeed, the really large price changes do not occur until output has approached the limits of a country's capacity. In contrast to these war developments, price and cost changes in normal years of peace are smaller and much more closely related to rising and falling output and employment. The disturbances in a country's balance of payments during non-war periods are therefore largely attributable to factors other than price change, and parity calculations have a correspondingly small significance. This was particularly true during the thirties when international payments throughout the world were disrupted by large and divergent movements of output and employment as well as by large and rapidly changing capital movements. Under these circumstances, it is not sur-

prising that a method of estimating equilibrium exchange rates which was reasonably satisfactory for conditions of war and postwar inflation should have been quite inapplicable to the depressed and unstable conditions of the early thirties. It is unfortunate however that the inappropriateness of the parity doctrine to the conditions of the thirties should have led to a complete condemnation of purchasing power parity under all conditions. Despite the limitations of parity calculations it ought to be recognized that a comparison of price movements in different countries in times of war inflation provides much useful information regarding exchange rates and international equilibrium. In other words war induced movements of prices and costs should be recognized as an independent influence on the flow of foreign payments and receipts.

Parity Rates Based upon Wholesale and Retail Prices Without intending to deny the relevance of other forces a table is presented here which indicates roughly to what extent the exchange rates announced by the International Monetary Fund have made allowance for war induced changes in prices. For 19 of the member countries purchasing power parity rates have been computed by using the period from October 1936 through June 1937 as a base. The parity rate for a given country is the rate which would make the present purchasing power of that country's currency the same relative to the purchasing power of the dollar as it was in the base period. Reasons for the choice of the base period used here have been discussed earlier in connection with the prewar movement of exchange rates. Most of the parity rates have been computed as of November or December 1946 but in any event the date for which each rate was computed is indicated in the table. Since prices seldom moved in an entirely uniform manner within a single country parity rates have been computed for two types of average prices—a wholesale price index and a cost of living or retail price index. The table shows a rather persistent tendency for the rates announced by the Fund to exceed the parity rates. Of the 19 countries whose rates are included 9 countries—Belgium, Colombia, Costa Rica, Cuba, Egypt, France, India, Iran, and Mexico—have official exchange rates which appear to be well above the parity rates regardless of whether such parity rates are measured in wholesale or retail prices. In only three cases—Canada, the Union of South Africa, and the United Kingdom—are the rates announced by the Fund substantially lower than the parity rates for the end of 1946.

The fact shown by the table that official rates announced by the

Fund exceed the parity rates for a considerable number of countries does not mean, of course, that the currencies of the countries involved are necessarily overvalued by the Fund. The question whether any particular rate is too high or too low in terms of dollars is an extremely involved question which could not possibly be answered in an over-all survey of

PARITY EXCHANGE RATES COMPARED WITH THE RATES ANNOUNCED BY THE INTERNATIONAL MONETARY FUND¹

(In cents per units of foreign currency)

Member country	Parity rates		Rates announced by the Fund
	Wholesale price parity	Cost of living parity	
Belgium.....		(12/46) 1.52	2.28
Canada.....	(11/46) 120.33	(11/46) 118.45	100.00
Chile.....	(11/46) 3.19	(11/46) 2.35	3.23
Colombia.....		(10/46) 39.39	57.14
Costa Rica.....	(11/46) 13.28	(11/46) 11.38	17.81
Cuba.....		(10/46) 72.17	100.00
Czechoslovakia.....	(11/46) 1.90	(11/46) 1.54	2.00
Denmark.....	(11/46) 18.54	(9/46) 19.34	20.84
Egypt.....	(7/46) 246.27	(7/46) 251.93	413.30
France.....	(11/46) 0.63	(9/46) 0.53	0.84
India.....	(8/46) 16.69	(11/46) 21.21	30.23
Iran.....	(5/46) 1.54	(5/46) 1.07	3.10
Mexico.....	(11/46) 15.89	(11/46) 11.63	20.60
Netherlands.....	(10/46) 34.16	(9/46) 42.11	37.70
Norway.....	(11/46) 22.80	(11/46) 21.59	20.15
Peru.....	(11/46) 15.58	(11/46) 17.40	15.38
Turkey.....	(9/46) 29.50	(9/46) 35.23	35.71
Union of South Africa.....	(9/46) 425.24	(9/46) 500.27	403.00
United Kingdom.....	(11/46) 467.59	(11/46) 549.46	403.00

¹ Sources of price data are given in the appendix table on p. 45; sources of exchange rates in preceding tables. The base period used in calculating these parity rates is the same as the base period for which prewar exchange rates are given in the earlier tables. Figures in parentheses indicate the month and year for which the parity rate was computed.

postwar exchange rates such as the present paper. In order to make an exact estimate of the exchange rates which would be consistent with a balanced position in international trade, it would be necessary to consider all of the changes in tastes, techniques, real income, and capital movements mentioned above, in addition to the changes in prices. In other words, the parity calculations are only a first approximation which

indicates to what extent present exchange rates have made allowance for the war induced changes in the domestic purchasing power of various currencies. Nevertheless the fact that the parity rates tend to fall short of the rates announced by the Fund is, in the author's opinion, a general indication that present exchange rates of a number of countries are somewhat higher than the rates which will ultimately be consistent with a balanced state of international payments.

The tendency for present exchange rates to exceed parity rates is also apparent in countries which are not members of the Fund, as well as in member countries for which no exchange rates have been announced. The accompanying table presents parity rates and actual rates as of December 1946 for five nonmember countries and for five member countries whose official rates have not been agreed upon. Since the general picture presented by this table is much the same as that for the member countries which have agreed rates, it will not be necessary to comment in detail. It may be useful, however in concluding the presentation of parity rates, to make a few remarks concerning the general pattern of rates in both member and nonmember countries. So far as possible, rates will be considered within broad economic or geographic groups of countries.

The only group of countries for which parity rates are consistently higher than actual rates are the United Kingdom and the British dominions of Canada, Australia, New Zealand, and South Africa. In all of these countries price controls were effective during the war and to a considerable extent have subsequently been maintained. Up to the present time, war and postwar inflation have thus been largely avoided, and at present exchange rates the purchasing power of the currencies of these countries has increased, relative to the purchasing power of the dollar. The position of these countries is discussed further in a later section. Parity rates for the Western European countries, except for the Netherlands, are to a greater or smaller extent below the actual dollar exchange rates.

... actual rate. In any event the discrepancies between parity rates and actual rates for the Scandinavian countries are not large. Egypt, India, and Iran all have parity rates which are well below the actual rates. The parity rate of the Egyptian pound, for example, is approximately \$2.50, compared with an actual rate of \$4.13. Likewise, with

respect to India, the parity rate for the rupee is between 17 and 21 cents, compared with an actual rate of approximately 30 cents. Although these figures indicate a substantial change in comparative purchasing power, the reader is warned against placing too much reliance upon any particular figure. The price index numbers for these countries are at best rough approximations, and more comprehensive indexes might deviate considerably from the ones used in the parity calculations. Moreover, in non-industrial countries such as these the cost structure is much more flexible

PARITY EXCHANGE RATES COMPARED WITH RATES IN DECEMBER, 1946, FOR NONMEMBER COUNTRIES AND FOR MEMBER COUNTRIES FOR WHICH RATES HAVE NOT BEEN ANNOUNCED¹

(In cents per unit of foreign currency)

Country	Parity rates		Rates in December 1946
	Wholesale price parity	Cost of living parity	
Nonmember countries:			
Argentina.....	(11/46) 24.66	.....	29.77
Australia*.....	(11/46) 440.51	(9/46) 424.97	321.07
New Zealand.....	(10/46) 395.27	.....	322.36
Sweden.....	(11/46) 24.66	(9/46) 24.11	27.82
Switzerland.....	(11/46) 18.77	(11/46) 21.86	23.36
Member countries for which rates have not been announced:			
Brazil.....	.....	(11/46) 3.87	5.41
Greece.....	.....	(10/46) 0.0083	0.02
Italy.....	(11/46) 0.14	(9/46) 0.26	0.26
Poland.....	.....	(10/46) 0.23	1.00
Uruguay.....	.....	(9/46) 74.94	56.27

¹ Sources are the same as in preceding tables. The base period is the same as in the tables of exchange rates. Figures in parentheses indicate the month and year for which the parity rate was computed.

* Admitted to membership on Aug. 5, 1947, after this analysis had been completed.

than in countries like the United States and the United Kingdom. If a decline in prices eventually sets in, price indexes for these countries may therefore decline quite rapidly. It would accordingly be a mistake to assume that the war-induced inflation of prices and costs is as permanent in countries such as Egypt and India as it will probably be in the United States and the United Kingdom. The same consideration applies, to a considerable extent, to prices and costs in Latin America. As the two tables show, the Latin American parity rates are, with a few exceptions, somewhat below the actual rates. This does not necessarily mean, how-

ever, that the Latin American countries will experience difficulties in exporting at existing rates, for the cost structure is relatively flexible in many of these countries, and may adjust itself rather rapidly in a period of general deflation.

Multilateral and Bilateral Comparisons The foregoing description of exchange rates and of the relation of such rates to parity rates has been devoted exclusively to a comparison of individual currencies with the U S dollar. Nothing has been said about such additional problems as the relation of the French franc to the pound sterling, or the relation of the Scandinavian currencies to those of France, Belgium, and the Netherlands. A bilateral comparison of individual currencies with the dollar, such as the comparison above, is obviously important, since the foreign trade and foreign financial transactions between the United States and other countries will continue to be a substantial part of world trade and finance, particularly in the immediate future. A complete description of exchange rates and prices on the other hand, must consider not only such bilateral relations but also the multilateral character of all currency values and prices.

In Belgium, for example, the relation of the French franc to the Belgium franc is normally more important than the relation of these two currencies to the dollar. Similarly in Denmark, the sterling krone ratio is more significant than the dollar krone ratio. These "cross rates" should therefore be considered as well as the dollar rates.

Unfortunately, a completely multilateral assessment of exchange rates is confronted, at the outset, with tremendous technical difficulties. It is possible to consider the balance of payments of a particular country with the rest of the world, and to say that with the existing cross rates of exchange in the rest of the world the present value of the particular currency appears to be too high or too low. But what if these cross rates are altered by a change in the value of some other country's currency? How will this affect the judgment that the particular country's currency is overvalued or undervalued relative to the rest of the world? To the professional reader it will be apparent that the problem posed here is really a problem of simultaneous equations and a complete solution can not be obtained in any other way. For present purposes, therefore, the multilateral comparison must necessarily be limited to a few rather general observations.

It may be noted at the outset that so far as price effects are concerned

there is no need to make a multilateral comparison in addition to the bilateral study of parity rates, for the parity rates of all currencies in relation to a particular currency will establish cross rates which are also parity rates for the currencies concerned. To clarify this point, consider a numerical example. Suppose that in a base period the price of the pound sterling in dollars is \$4.50 while the price of the French franc is \$0.05. The cross rate between the franc and the pound will then be 90 francs to the pound. Suppose now, that at the end of a period of inflation, representative price index numbers in the three countries, with the base period as 100, are as follows: United States, 150; United Kingdom, 300; France, 600. The parity rates for the pound and the franc, relative to the dollar, are then \$2.25 and \$0.0125 respectively. This implies a cross rate between the pound and the franc of 180 francs to the pound, which is also the parity rate of the franc relative to the pound. Thus, as far as price comparisons are concerned, parity calculations and multilateral comparisons come to the same thing. Multilateral comparisons must be made only when we are considering the complications introduced by capital movements, changes in methods of production, and other nonprice influences on a country's balance of payments, or when we wish to study the effects of maintaining exchange rates which in some instances do not agree with the parity rates.

The significance of multilateral comparisons is readily apparent in some of the regional problems which were suggested above. We have seen that, as far as prices alone are concerned, the present value of the pound sterling relative to the dollar appears to be somewhat low while the prices of the Scandinavian currencies are not far from the dollar parity rates. Assuming that no change is made in the value of the pound relative to the dollar, this means that the Scandinavian currencies will be expensive relative to sterling. Unless Danish exports of agricultural products are subsidized, these exports to the United Kingdom may accordingly be expensive compared with other prices in the United Kingdom. Thus, if the dollar price of the pound remains unchanged it may be necessary at some point to change the dollar prices of the Scandinavian currencies even though they are at present not far from the dollar parities.

Similar arguments apply to other cross rates such as that between France and Belgium. Although both the French franc and the Belgian franc appear to be expensive in terms of dollars, the degree of overvaluation is about the same in both cases; the Belgian dollar parity rate,

based on retail prices, is 67 per cent of the actual rate, while the French parity is 63 per cent of the actual rate. In export markets where the two countries are in competition, overvaluation relative to the dollar is thus less significant than it would have been had the degree of overvaluation differed as between the two countries, and Belgium's decision concerning any future adjustment of the external value of its currency will be greatly influenced by the policy adopted concerning the French franc.

Other examples of cross relationships could be given, but for present purposes the ones above should suffice to indicate the complicated character of the multilateral system of exchange rates. Every rate is related to every other rate, and changes in one will inevitably have repercussions upon many others.

THE POLICY OF THE INTERNATIONAL MONETARY FUND

Alternatives Which Faced the Fund. When initial exchange rates were under discussion during the last quarter of 1946, the Fund and the member countries were faced with two alternative courses of action. First, they could have attempted to determine the pattern of exchange

... balance in international

... action would probably have required substantial changes in some exchange rates, but if the original calculations were carefully done there might have been a reasonable expectation that subsequent changes in rates would be relatively small. The second alternative was to accept more or less the existing pattern of exchange rates with the expectation that adjustments would be made later when more normal conditions returned. In other words, the adjustment of exchange rates to the new economic conditions brought about by the war could be postponed until a later date.

In fact, the Fund adopted the second alternative. Although Mr. Gutt, in requesting information from the member countries relative to their exchange rates, had announced that the Fund must solve its most difficult problem—the agreement on initial exchange rates—before it commenced operations, in the end a decision was made, in effect, to postpone the solution of the problem by accepting the present pattern of exchange rates. The member countries requested that the rates at which they had stabilized their currencies after the war be used as official

rates by the Fund, and after considerable discussion this was agreed to in the case of all the countries for which rates were announced. As noted earlier, however, it was frankly recognized at the time the initial rates were announced that adjustments would probably be necessary later. The foregoing discussion of parity rates lends support to this view, for it indicates that unless unforeseen changes in prices and costs occur, the currencies of a considerable number of countries will probably prove to be too high, when normal conditions have returned, to preserve a balance between foreign payments and receipts.

Reasons for Accepting Current Rates. Why were the existing rates accepted as initial rates by the Fund despite the fact that some of them were known to be out of line with current prices and costs? And what will be the consequences of this action on the flow of international trade? Perhaps the most important reason for beginning operations with existing rates is that the member countries themselves were anxious to keep their present rates, and that most of them had good economic reasons for wanting to do so. It is an interesting fact that many countries today want to keep the value of their currencies as high as possible, despite wartime increases in prices and costs, whereas in the prewar decade these same countries, in many instances, were rivals in a general move to depreciate their currencies. Although this reversal in attitude may seem strange at first sight, it is easily explained in terms of the difference between the primary economic problems of the thirties and those of the present day. In the thirties, the over-riding economic problem in almost all countries was deflation, inadequate demand, and unemployment. Most countries were extremely anxious to increase the demand for their products, including the foreign demand, and one means of increasing foreign demand was to depreciate the currency. Once this process was started, it led to depreciation of other currencies in retaliation or self-protection, and thus we witnessed a wave of competitive currency depreciation.

The situation today offers a sharp contrast with conditions in the thirties, and the currency policies followed by individual countries are accordingly different. The problem today is how to avoid a *rise* in prices rather than how to avoid a price decline. A considerable part of the world's productive capacity has been destroyed or worn out and at the same time the demand for goods in general has reached an unprecedented height as the combined result of accumulated war shortages and accumulated purchasing power. Thus the primary problem today is how to

produce enough to satisfy the present demand, whereas the problem of the thirties was how to find markets for the goods which could be produced. In view of this contrast in economic conditions, it is not surprising that the foreign financial policies of many countries are strikingly different from their policies during the thirties. Although many countries recognize that their current exchange rates in terms of dollars and pounds sterling are probably too high, relative to present prices and costs, most of these countries are extremely reluctant to depreciate at the present time.

This reluctance to depreciate is in part attributable to a fear that depreciation would aggravate inflationary developments. Just as currency depreciation in the thirties helped individual countries to avoid a fall in domestic prices and incomes by creating a foreign demand for their goods, so today, the maintenance of high currency values helps many of these same countries to retard inflation by keeping down the domestic prices of their imports. Despite present inflationary pressures, many countries have finally succeeded in achieving a precarious price stability and an equally precarious balance between prices and costs by means of price controls, wage controls, and rationing. Although these controls in many instances are neither as comprehensive nor as strictly enforced as war controls, they have frequently accomplished the purpose of preventing or retarding a further spiral of increased prices and increased costs. The distaste for currency depreciation is in many instances attributable to a fear that depreciation, by increasing the domestic prices of imports, will disturb the precarious balance and lead to additional increases in both prices and wages. If a country's domestic prices for imported goods rise as a result of depreciation, this means in many cases a substantial increase in the cost of living, and an increase in living costs may easily lead to demands for wage increases which will start the entire inflationary process anew. Considering this possibility, it is easy to understand why many countries, and particularly those countries whose economies were badly damaged by war, are reluctant to depreciate their currencies at the present time.

Apart from its effect on the cost of living, currency depreciation in the near future might have serious inflationary consequences simply as a result of its psychological effects. This is particularly true of the European countries in which inflation after the First World War was accompanied by a rapid currency depreciation. The people in many of these countries have an exaggerated idea of the relation between depreciation and the

internal value of a currency and tend in some cases to regard depreciation and inflation as synonymous. Depreciation in these countries, under present circumstances, might therefore lead to a wave of spending which would further aggravate the tendency of prices to rise. It would be assuming a considerable responsibility to insist, in the face of these conditions, that an immediate adjustment should be made in the exchange rates of the countries whose currencies seem from a long-run point of view to be overvalued.

Apart from the dangers of further inflation, there are a number of other convincing arguments against making an immediate adjustment in exchange rates. Most countries whose currencies appear to be too expensive in relation to their domestic prices are also countries which will be borrowing heavily from the dollar area during the next three or four years. In other words, the normal condition for these countries during the transition years will be an import surplus, the excess of imports to be paid for out of dollar loans from such agencies as the Export-Import Bank and the International Bank for Reconstruction and Development. Thus even if such countries had no import controls and their exchange rates were immediately adjusted to a level where their foreign receipts, including loans, were equal to their foreign payments, the presence of the import surplus financed by loans would mean that the currency values of the borrowing countries could be somewhat higher during the borrowing period, relative to prices, than the prewar equilibrium rates. To put the matter another way, the equilibrium rates for the borrowing countries during the transition period will be above the parity rates. How much significance should be attached to this point is difficult to estimate. For some countries exchange rates are probably so high, relative to prices, that the present rates are above equilibrium rates even if allowance is made for borrowing from abroad. In cases where the parity rate indicates only a slight overvaluation relative to prices, on the other hand, the present exchange rates may not be far out of line.

Another reason for maintaining present exchange rates during the transition years is the condition of the export industries. In many countries whose currencies appear to be overvalued exports are limited not by market conditions but by inability to produce. As long as this is the case, a depreciation of the currency will not enable the depreciating country to increase its receipts of foreign exchange. It is true, of course, that depreciation will enable a country to reduce its export prices, in terms of foreign currency, while maintaining or even increasing the prices which

domestic producers receive in their own currency, but if the physical volume of exports cannot be increased because of limits to productive capacity the reduction in foreign prices will not increase the foreign exchange available to the exporting country. On the contrary, depreciation in this case will reduce the amount of foreign exchange received in the depreciating country and thereby worsen the country's balance of payments.

In addition to the reasons mentioned above, it seems likely that the decision of the Fund to begin operations with existing exchange rates was influenced to a considerable extent by the great uncertainty concerning the future course of world trade. Although comparisons of price changes with changes in exchange rates establish a presumption that many currencies today are too expensive relative to the dollar for a long run balanced world economy, it would be a mistake to assume that the parity rates themselves are necessarily the proper rates. Many changes in basic economic conditions have occurred during the war and these changes will inevitably affect the terms on which goods will be exchanged in the future. For this reason, it is not sufficient simply to adjust exchange rates to the observed price movements. In addition, an allowance must be made for the increased or decreased ability of some countries to export, and for changes in the demand for imports.

Unfortunately adjustments of this type are extremely difficult to make. How, for example, will the decline of Germany and Japan in world trade affect the trade balances of other countries? What effect will the rebuilding of the devastated countries have on their ability to produce and to export? At the present time it is obviously impossible to give precise quantitative answers to questions such as these. The network of world trade is so complex that it is extremely difficult to trace the consequences of a —

... to postpone exchange adjustments, for only actual experience can tell us which countries are likely to have deficits and which to have surpluses as a result of the war induced changes in conditions of production and consumption.

With regard to the course of prices in different countries, uncertainties are almost equally great. It has been said, on the one hand, that prices and costs in countries which now have overvalued currencies will probably fall as normal production is resumed and the accumulated war losses are replaced. On the other hand, however, the continuing inflationary pressures in some countries may raise prices above present levels.

Probably even more important so far as price comparisons are concerned is the fact that the index numbers upon which these comparisons are based are limited, for the most part, to official prices and make only slight allowance for the higher black market prices. As output is increased and accumulated demands are satisfied, some of these black market prices will clearly tend to fall. At the same time, however, it seems highly probable that official prices will tend to rise, since the current cost structure almost certainly reflects, in part, the high level of black market prices. Taking all of these possibilities into account, it seems doubtful, to the present writer, whether a significant part of the disparities between current prices and exchange rates will be corrected by a fall in prices in the countries with overvalued currencies.

Several of the reasons discussed above for postponing action on exchange adjustments were explicitly recognized by the Fund. The announcement of initial rates which was made on December 18, 1946, contained the following statement:

The Fund realizes that at the present exchange rates there are substantial disparities in price and wage levels among a number of countries. In present circumstances, however, such disparities do not have the same significance as in normal times. For practically all countries, exports are being limited mainly by difficulties of production or transport, and the wide gaps which exist in some countries between the cost of needed imports and the proceeds of exports would not be appreciably narrowed by changes in their currency parities. In addition, many countries have just begun to recover from the disruption of war, and efforts to restore the productivity of their economies may be expected gradually to bring their cost structures into line with those of other countries. Furthermore, for many countries now concerned with combating inflation there is a danger that a change in the exchange rate would aggravate internal tendencies toward inflation.

From this statement it is apparent that the Fund placed considerable weight on the numerous reasons for postponing adjustments. Even if the Fund had wanted to change some of the present rates, however, there is some doubt as to whether it would have been able to establish its authority to require such changes under the present abnormal conditions. Article XX of the Articles of Agreement of the Fund stipulates that the par value of a currency communicated to the Fund by a member shall be the initial value for the purpose of the Fund's operations unless, "(i) the member notifies the Fund that it regards the par value as unsatisfactory, or (ii) the Fund notifies the member that in its opinion the par value cannot be maintained *without causing recourse to the Fund on the part*

of that member or others on a scale prejudicial to the Fund and to members"⁴ From this part of the Agreement, it appears that the Fund has only rather limited authority in the setting of initial rates. The member country itself can apparently object to the communicated par value for any reason whatsoever, whereas the Fund can object only if it feels that the communicated par value would cause undue recourse to the Fund.

The difficulty about this criterion is that a number of war ravaged countries *whatever exchange rate they adopt*, may be expected to have a deficit in their balance of payments over the next year or so of a size necessitating their making full use of their annual drawing rights on the Fund and yet of such an apparently transitory character as to justify use of the Fund's resources. In the case of such countries, the scale of recourse to the Fund will not be dependent, in the initial period, upon the level of the exchange rate. Of course the Fund might fear that if the existing rate were maintained over a period of years, these drafts upon the Fund might become chronic. But in view of the uncertainties concerning long range predictions of balance of payment developments, the Fund would find it difficult to offer convincing substantiation for such fears. Even if it could, the country concerned might well respond that the time for adjustment would arrive only later when the scale of its recourse to the Fund actually came to depend upon its exchange rate policy. It is not known to what extent this limitation on the Fund influenced the decision concerning initial rates but it may have played some part.

Dangers of Postponing Action. Unless radical readjustments of prices occur in some countries, it seems apparent from the preceding discussion that the initial exchange rates at which the Fund has commenced operations are in a substantial number of cases too high for a long run balanced state of trade. This is not necessarily an indication that an immediate adjustment should be made for we have seen that there are strong arguments for postponing the adjustment and continuing during the transition period with existing rates. At the same time however, it is well to recognize that maintaining exchange rates which are too high in relation to prices may involve certain dangers for the future of a liberal foreign economic program.⁵

⁴ Article XX Sec. 4(b) *Italics added*

⁵ A substantial number of the advantages and disadvantages of an immediate adjustment of exchange rates were listed by Haberler in the article previously cited. In contrast to the present paper however Professor Haberler concluded that undervaluation of European currencies was preferable to the present rather general overvaluation.

The principal danger is that once a country has adjusted its trade controls to an overvalued currency the country may later be reluctant to relax these controls and depreciate its currency to a level compatible with balanced international payments. Apart from the question of national prestige, an overvalued currency may be tempting to some countries even after the period of reconstruction has ended and the threat of inflation has subsided. Rightly or wrongly, there is a tendency to associate a high-priced currency with low prices for imports relative to the prices received for exports. In other words, it is widely believed that an appreciated currency means favorable terms of trade. Whether this is always true or not is beside the point. For present purposes, it is sufficient that many people believe it is true, and that some countries may therefore desire to maintain overvalued currencies more or less permanently, and to preserve balance in their international payments by means of trade controls or other barriers to trade. In other words, if exchange rates are set, for a considerable period of time, in a pattern which is not consistent with balanced international payments, there is a danger that balance will nevertheless be achieved by means of various direct controls, and that the pressure for a readjustment of rates arising from loss of external reserves will accordingly be negligible.

A second danger of the present exchange pattern is that it may freeze a system of export subsidies more or less permanently into many economic systems. In some countries, exchange rates are so high relative to prices that it seems doubtful whether many industries in these countries will be able to resume their prewar normal export trade without substantial subsidies. Like import controls, these export subsidies may come to be regarded as a permanent feature of international trade. If so, the cost of postponing adjustments of exchange rates will be a permanent distortion of the price system.

Whether the dangers of postponing action are real or only apparent depends to some extent upon the success or failure of current efforts to establish an International Trade Organization. Under the draft charter of this proposed organization, the member countries would agree to a code of trade practices calling for a general reduction of trade barriers and export subsidies. The charter recognizes that quantitative import controls may be needed, in some instances, to preserve equilibrium in a country's balance of payments, but if equilibrium continues to require import restrictions it is anticipated that other measures, such as an ad-

adjustment of exchange rates or of prices and costs, will be undertaken. Tariffs and export subsidies are presumably not to be considered under the organization's charter as means of adjusting the balance of payments either temporarily or in the long run. Thus if the charter is accepted by a large number of countries there will be less danger that the present pattern of rather abnormal exchange rates will become permanent than would otherwise be the case. Although these rates might be compensated or offset for a considerable period of time by export subsidies and direct import controls, the International Trade Organization would presumably exert strong influence on the member countries to reduce their controls and subsidies and to adjust their exchange rates to a level which is compatible with balanced international payments and receipts. Whether the International Trade Organization comes into existence or not, however, it seems doubtful to the present writer that the arguments in favor of an immediate adjustment of exchange rates are sufficiently convincing to offset the serious disadvantages of such action.

The "Undervalued" Currencies In discussing the probable consequences of the acceptance by the Fund of existing exchange rates we have considered thus far only the countries whose currencies appear to be too expensive relative to the dollar. This indeed is the problem which has received most attention in current discussions and it is no doubt the most important problem from a practical point of view. Nevertheless, as noted earlier, the table of parity rates for members of the Fund shows that a few of the present rates are below the parity rates relative to the dollar. In other words, for a few countries depreciation of the currency in terms of dollars relative to the prewar situation was greater than the relative rise in prices. In order to complete the description of present exchange rates we ought to consider briefly the position of these undervalued currencies.

The countries whose currencies seem to be undervalued in terms of dollars are the United Kingdom and the following members of the British Commonwealth of Nations: Australia, Canada, New Zealand, and the Union of South Africa. Although Australia* and New Zealand are not yet members of the Fund, their present exchange rates will nevertheless be considered along with the other British currencies. Whether measured in wholesale or in retail prices, the parity rates for all of these countries are above the actual rates. For convenient reference, the ratio of parity

*Australia was admitted to membership on Aug. 5, 1947, after this analysis had been completed.

rates to actual rates in all five countries is given in the following table for the end of 1946.

RATIO OF PARITY RATES TO ACTUAL RATES FOR SELECTED BRITISH CURRENCIES
(Ratios computed with reference to U. S. dollar)

Country	In wholesale prices	In retail prices
Australia.....	1.37	1.32
Canada.....	1.20	1.18
New Zealand.....	1.23	—
Union of South Africa.....	1.06	1.24
United Kingdom.....	1.16	1.36

The extent of undervaluation, measured by prices, varies from 6 per cent to 37 per cent, with an average of perhaps 20 per cent. The actual numbers are not as important, however, as the general direction, for we have seen that it is impossible to give a precise interpretation to the parity calculations.

The undervaluation of British currencies shown by these figures is to a large extent attributable to the price inflation which has taken place in the United States since price controls were abandoned in the middle of 1946. In August 1946, parity calculations comparable to those included in the present paper were made, and at that time the currency rates for the British countries, except for India and Egypt, appeared to correspond roughly with parity rates. Subsequently, however, both retail and wholesale prices increased much more rapidly in the United States than in the British countries. A few examples will indicate the disparity in price movements. Between June and December 1946, the index of wholesale prices in the United States increased 25 per cent, whereas the British wholesale price index increased by only 4 per cent. During the same period, retail prices in the United States increased by 15 per cent, compared with an increase of 2.4 per cent in Canada and virtually no change in the United Kingdom. As a result of these changes, the British currencies, including the Canadian dollar, now appear to be low-priced in relation to the movement of prices in general.

If this is true, why did the countries of the British Commonwealth not request an appreciation of their currencies, relative to the dollar, when initial exchange rates for the Fund were being considered? A complete answer to this question would be beyond the scope of the present paper, since it would require a detailed investigation of economic conditions in each of the countries concerned. It will suffice, at this point, to indicate a number of broad considerations bearing on the question.

Unlike many other countries, the British countries whose currencies appear to be undervalued do not have an acute problem of inflation. It is true, of course that most of them have a substantial amount of accumulated demand and a corresponding amount of liquid purchasing power, but this development which would otherwise be inflationary, has not been permitted to have any appreciable effect upon prices, since wartime controls have been carried over into the period of reconstruction. The situation is accordingly less precarious in these countries than in many others and there is less danger that a price rise in a particular group of commodities such as imports will set off an inflationary spiral of prices and costs. This means that countries such as the United Kingdom and Australia do not have to rely on low prices of imports as a means of preventing inflation at home. In other words, their domestic controls are so strong that it is not necessary, or at least not imperative, to use their exchange rates as instruments of domestic policy. It may be presumed that this is one reason why the British countries did not insist upon more expensive currencies, relative to the dollar.

Another factor in the decision, no doubt, was the feeling that the price situation in the United States is only temporary, and that prices here will eventually fall. Also, price indexes used for the United Kingdom probably overstated somewhat the degree of undervaluation of the pound sterling, since the cost of living index at any rate, was known to be relatively insensitive to the war induced rise of prices. The complaint was frequently heard in the United Kingdom that the British authorities had stabilized the cost of living index but not the cost of living. This fact, together with the belief that prices in the United States may fall to some extent from their present high level, means that the price comparison is not as valid an indication of the equilibrium rate for the pound sterling as would otherwise be the case. The British apparently do not wish to appreciate now and be confronted later with the necessity of reducing the price of their currency as the result of a decline in American prices.

Apart from the price factors, additional reasons for not appreciating the pound may be found in the state of Britain's balance of payments. The British international position is well known and it will not be necessary to review it in detail here. Liquidation of British overseas assets as well as the great increase in her overseas liabilities which occurred during the war will make it necessary for the United Kingdom to export a larger volume of goods in order to pay for a given volume of imports than was the case in the prewar years. Adjustment to this new situation will of course be postponed by the loans which the United Kingdom has

received from the United States and Canada, but eventually it is highly probable that a rate of exchange for the pound lower than the parity rate will be needed in order to increase Britain's exports relative to her imports. In the present state of general world shortage of goods, the British could no doubt sell as much abroad as they are now selling even if they increased their foreign prices. This means that appreciation of the pound might, in the immediate future, increase Britain's receipts from exports. At a later date, however, when world markets become more competitive, it is almost certain that British exports would be affected adversely if the pound had been appreciated. In its current export drive, the United Kingdom is apparently taking the long view, being willing to forego some temporary gains for the benefit of a more lasting position in the world's export markets. Moreover, in view of the key importance of the sterling-dollar rate in the world rate structure, the British may have been very hesitant to upset their existing relationship; they may also have had some feeling that the American public would find it difficult to reconcile an upward revaluation in the pound sterling with continued British requests for American financial support.

The Canadian situation is somewhat different from that of the United Kingdom. In the United Kingdom, as we have seen, there might be a short-run advantage to an appreciation of the pound, but over a longer period, when borrowing from other countries has ceased, it is doubtful whether a value of the pound as high as the parity rate could be maintained. In Canada, on the other hand, an upward adjustment of the currency value might be appropriate as a long-run measure but in the immediate future there are pressing reasons for retaining the present rate, even though it is low relative to the war-induced movement of prices. The Canadians have committed themselves to make postwar loans of approximately 2 billion dollars, and Canadian exports must therefore be considerably greater than imports, in the near future, in order to preserve a balanced state of international payments. Canada is already beginning to feel the effects of this situation in a deficit with the United States, and there is accordingly little prospect that the Canadian authorities will want to raise the value of their currency.

With regard to the other countries—Australia, New Zealand, and South Africa—little need be added. As in the past, they will probably wish to maintain a stable relation between their currencies and the pound sterling. As far as relative prices are concerned, there is no reason why this should not be possible. In the long run, however, the fact that they have reduced their indebtedness to the United Kingdom will mean

that their exports will be smaller relative to imports than in the past. In other words they will no longer need an export surplus to make service payments on their foreign debts and on this account a long run appreciation of their currencies relative to the pound and the dollar, might reasonably be expected.

CONCLUSIONS

A contrast was drawn at the beginning of this paper between the manner of setting exchange rates after the First World War and the procedure provided through the International Monetary Fund for establishing such rates after the Second World War. The uncoordinated almost anarchistic establishment of relative currency values through unilateral return to the gold standard after the First World War was compared with the deliberations contemplated under the Articles of Agreement of the Fund. From the discussion of present exchange rates however and from the action of the Fund in announcing these rates as initial rates for the Fund's operations it should be apparent that the contrast at the present time is more in the *mechanism* for setting rates than in the actual results. It was a considerable achievement, even though a belated one to have recognized in the Fund Agreement that gold parities of different currencies are important primarily because they govern relative currency values in international trade. It was an achievement, also to have obtained an explicit statement of the importance of multilateral negotiations in establishing gold parities and relative currency values. It can hardly be said however that progress in exchange rate policy has gone much beyond these statements of principle for we have seen that the exchange rates announced by the Fund involve to some extent discrepancies similar to those which disturbed world trade after the First World War. Many currencies appear to be too expensive relative to prices while a few are too cheap.

This is not to say that the Fund made a mistake in deciding to begin operations with the rates at which the member countries had pegged their exchanges. There are many convincing reasons as noted above for postponing action in the adjustment of exchange rates particularly in the adjustment of rates which at the present time appear to be too high. Inflationary pressures are still strong and persistent in many of the countries having currencies which are expensive relative to prices and depreciation at this time would intensify these inflationary tendencies by

increasing the domestic prices of imports. Depreciation, moreover, would not increase the foreign exchange available to such countries from the sale of exports, for under present market conditions the limitation on exports is usually inability of export industries to produce rather than inability to sell, and depreciation would do little, in the short run at least, to increase a country's capacity to produce for export. Another reason for maintaining rates which in some cases appear to be too high is that the countries with apparent overvaluation in their currencies are, generally speaking, countries which will be borrowing heavily in the next few years. Such borrowing countries will not expect to secure an even balance of payments on current account in the near future. They will expect, instead, to have an excess of imports of goods and services over exports, and the exchange rate appropriate to this situation, even if no direct controls were maintained, would be a rate somewhat above the parity rate. For the borrowing countries, apparent overvaluation relative to prices is thus not necessarily an indication that a downward adjustment is desirable.

In addition to all of these considerations, a probable further factor in the Fund's decision to accept existing exchange rates as initial rates is the large amount of uncertainty regarding the future development of world trade. The future is uncertain both with respect to the pattern of trade and the pattern of prices. The Second World War was much more destructive than the first, and as a result it is almost impossible to say, at this time, which countries will have a comparative advantage in particular commodities when the period of reconstruction has ended. Two countries, Germany and Japan, have been almost completely eliminated from world markets and it is not known to what extent their trade will revive or what effect their diminished importance will have on the trade of other countries. In any event, many uncertainties remain both with respect to changes in the pattern of trade and with respect to future price movements, and these uncertainties make it almost impossible to establish a pattern of long-run exchange rates immediately even if it were desirable on other grounds to do so.

It was probably for all of the reasons given above that the Fund decided to postpone the adjustment of exchange rates. The real test of the new mechanism for setting exchange rates will thus not come until more normal conditions return. In the meantime, the fact that some exchange rates are out of line will not necessarily have serious financial conse-

quences since both trade and payments will be rather strictly controlled during the reconstruction years. Eventually however when inflationary pressures have subsided when individual economies have been restored to a high productive capacity and when the ability to export has been increased many countries will be in a position to remove import controls and exchange controls to reduce export subsidies and to adjust the values of their currencies downward in consultation with the Fund. When this time comes and not before the value of the Fund arrangements for adjusting exchange rates will be given a genuine trial.

APPENDIX TABLES

TABLE I
U. S. WHOLESALE PRICE AND COST OF LIVING INDEXES
(October 1936 to June 1937 = 100)

Date	Wholesale price index	Cost of living index
1946		
March	127.2	128.7
April	128.7	129.3
May	129.7	130.1
June	131.9	131.7
July	145.2	139.3
August	150.8	142.0
September	144.9	144.2
October	156.7	146.6
November	163.1	149.9
December	164.6	151.9

SOURCES: Converted to 1937 base from Bureau of Labor Statistics index

TABLE II
PRICE INDEXES USED IN PARITY CALCULATIONS
(October 1936 to June 1937 is base period unless otherwise indicated)

Country	Wholesale price index		Cost of living index	
	Date for which computed	Value of index	Date for which computed	Value of index
Argentina.....	November 1946	216.4	.....	.....
Australia.....	November 1946	144.8	September 1946	132.7
Belgium.....	.....	.....	December 1946	336.7
Brazil.....	.....	.....	November 1946	237.3
Canada.....	November 1946	135.6	November 1946	126.6
Chile.....	November 1946	264.5	November 1946	330.1
Colombia.....	.....	.....	October 1946	*12.8
Costa Rica.....	November 1946	*211.5	November 1946	*210.5
Cuba.....	.....	.....	October 1946	*235.8
Czechoslovakia.....	November 1946	302.0	November 1946	340.8
Denmark.....	November 1946	192.7	September 1946	163.4
Egypt.....	July 1946	296.7	July 1946	278.3
France.....	November 1946	*808.3	September 1946	*787.0
Greece.....	.....	.....	October 1946	15,834.2
India.....	August 1946	335.0	November 1946	262.0
Iran.....	May 1946	512.3	May 1946	*753.7
Italy.....	November 1946	*5,884.5	November 1946	*3,344.0
Mexico.....	November 1946	284.8	November 1946	357.8
Netherlands.....	October 1946	250.2	September 1946	186.8
New Zealand.....	October 1946	156.2	.....	.....
Norway.....	November 1946	176.4	November 1946	171.2
Peru.....	November 1946	262.5	November 1946	216.0
Poland.....	.....	.....	October 1946	11,900.0
Sweden.....	November 1946	167.3	September 1946	151.3
Switzerland.....	November 1946	199.0	November 1946	157.0
Turkey.....	September 1946	392.9	September 1946	*329.0
Union of South Africa.....	September 1946	165.5	September 1946	140.0
United Kingdom.....	November 1946	171.2	November 1946	133.9
Uruguay.....	.....	.....	September 1946	*157.9
Venezuela.....	August 1946	155.6	.....	.....

* February 1937 base period.

* 1936 base period.

* July to December 1937 base period; food prices only.

* 1938 base period.

* March 1936 to March 1937 base period.

* 1937 base period. Index includes black market prices on rationed goods.

* 1937 base period; food prices only.

* 1936-37 base period.

SOURCES: United Nations statistical bulletins, government publications of Cuba, Poland, France, and China; consular reports. Recent cost of living figures for Belgium, Greece, France, and Poland were obtained from consular reports or government publications, and converted to the 1936-37 base period by the use of earlier indexes as given by the League of Nations. In other cases, continuous series were available.

NATIONAL CENTRAL BANKING AND THE INTERNATIONAL ECONOMY

by

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The growth of nationalistic policies in a world of growingly inter dependent nations is one of the apparent paradoxes of our age. Inter dependence has proved to have disadvantages as well as advantages, and its disadvantages have at times resulted in a resurgence of extreme nationalism. Countries have become engulfed in wars which in the past would never have concerned them and they have suffered from economic depressions having their origin in far distant lands. Nationalism persists in part as an effort to preserve or rebuild the crumbling natural boundaries which once protected countries from the political conflicts and economic maladjustments of other parts of the world. The many cases in which international crises have been intensified by nationalistic measures of defense by one country and retaliatory action by others have tended to overshadow the real and challenging problem responsible for these measures. Nothing can be gained by denying or ignoring its existence.

Our internationalism is often short sighted in this respect. In the monetary field, for example, we are prone to stigmatize exchange control or exchange devaluation but slow to suggest workable alternatives to meet or prevent the exchange shortages which bring about such measures of defense. Perhaps this is one reason why so little progress has been made in practice toward the elimination of exchange control and competitive devaluation, notwithstanding their condemnation by economists and statesmen alike.

A more constructive approach toward the problem is now in the process of effective realization. The recently created International Monetary Fund is specifically designed to promote international monetary stability through the concerted action of all member countries. The legal powers of the Fund may be grouped into two broad categories. First, the Fund has the financial machinery to help the members to maintain free and stable exchanges by supplementing their gold and foreign exchange resources in case of need. Thus at least one cause of monetary insta-

bility will be removed or considerably weakened. There is now an alternative to unilateral resort to currency depreciation or exchange restrictions during a period of severe even though temporary exchange shortages. Secondly, the Fund will wield a degree of influence over policy decisions of member countries. In some cases the Fund has only the power to make recommendations, or the right to be consulted. In others, such as parity changes or the establishment of exchange control, action by a member is subject to the Fund's authorization or approval.

In actual practice, however, the effective power and influence of the Fund may be far greater, or it may be far smaller, than its legal authority. Although the Fund has no right to impose specific domestic monetary or credit policies, it may develop a leadership and moral influence far beyond the scope of formal official recommendations. On the other hand, although in theory the Fund can forbid a country to engage in either currency devaluation or exchange control, such prohibition may prove to be unenforceable in the face of severe exchange shortages. Currency devaluation and exchange control are often the outcome of basic disequilibria in a country's international position and, in such a case, cannot be eliminated by mere legal provisions as long as the root causes remain, even with the best of will on the part of the country affected.

The ultimate success or failure of the Fund will depend in no small part on its ability to devise, in collaboration with member countries, workable and realistic standards of domestic as well as international monetary policy. This will require a bold revision of the traditional concepts and dogmas associated with the gold standard theory. The orthodox gold standard mechanism implied a more or less passive acceptance by each country of the automatic monetary adjustments necessitated by fluctuations in its balance of payments. This view was reaffirmed in the twenties by the Cunliffe Committee and played a major part in the studies and recommendations of the League of Nations in the monetary field. It is in direct contradiction to the increasing trend, both in theory and practice, toward independent monetary management by individual countries.

The events of the thirties, the increasing influence of Keynesian economics, and finally the financial impact of World War II have destroyed the institutional and ideological framework of the automatic gold standard. Tomorrow's currencies will be managed currencies. The only question at issue—and it is a fundamental one—is the direction toward which management will work, and the extent to which national objectives can

be reconciled with international balance. Any attempt to enforce rigid solutions patterned after orthodox gold standard doctrines would be even more futile in the postwar period than it has proved to be in the interwar period.

The purpose of this paper is to review briefly the interaction between the evolution of national central banking and that of the international gold standard, to raise some questions with relation to the actual working of the gold standard in prewar years, and to outline tentative suggestions with respect to the problem of international monetary stabilization.

CENTRAL BANKING AND THE GOLD STANDARD

The main problem considered in this paper is the reconciliation of domestic monetary policies with the prerequisites of international balance. In its purest form the gold standard solved the problem automatically by eliminating one of its terms: the domestic volume of money escaped the control of national authorities and was determined automatically by international market forces. Monetary circulation was made up of gold and subsidiary coin, it expanded or contracted, not as a result of conscious monetary policy, but in accordance with the net movements of the international balance of payments. A favorable balance of payments brought gold into a country and expanded the circulating medium. An unfavorable balance produced the opposite effect.

These movements were regarded as self-adjusting through their influence on national price and cost levels and on interest rates. International balance, if disturbed, would be restored because of the effects of the ensuing domestic contraction or expansion on relative cost and interest levels at home and abroad and the resulting shifts in trade and capital movements. The automatic monetary contraction produced by gold exports would raise interest rates and attract capital from abroad. It would at the same time exert a downward pressure on domestic prices and costs, thus stimulating exports and discouraging imports. Both of these movements—capital and trade—would tend to correct the balance of payments deficit in which they originated.¹ A surplus in the balance of payments would also be self-corrective. Gold imports would expand monetary circulation, lower interest rates, increase prices and costs, and stimulate capital exports and merchandise imports while discouraging

¹ Modern . . .
further . . .
ports and
disequilibrium . . .

exports. These processes would continue until foreign payments and receipts were again brought into balance.

This type of analysis contemplates a particularly rigid form of the gold standard in which there is no room for national sovereignty over currency or money. The only circulating medium is gold itself, *i.e.*, an international standard largely impervious to national manipulation or management. In actual practice, the gold standard never existed in such pure and unadulterated form. The value of the theoretical model discussed so far does not lie in its descriptive realism, but in the fact that it inspired so much of the academic thinking and legislative controversies regarding national and international monetary mechanisms during the nineteenth and even the twentieth century.

The coexistence of national means of payment, side by side with gold itself, deeply modified the practical functioning of the gold standard by freeing the domestic money supply from rigid dependence on balance of payments fluctuations. Little attention is usually paid, in this respect, to the latent antinomy between central banking and the classical gold standard. And yet the automatic monetary mechanism of the pure gold standard would obviously leave little room for what is today conceived as one of the primary functions of central banking action; namely, monetary management by the central banking authorities. An element in the confusion of thought on the subject is the lack of adaptability of our language, which reflects and tends to perpetuate outmoded habits of thought. Unchanging terminology has obscured fundamental institutional changes. Just as the gold standard of the twenties was basically different from the gold standard of earlier days, the central banks of today bear little resemblance to the central banks of the nineteenth century.

Indeed the original pattern of central banking had little or nothing to do with monetary management, which was left to the automatic regulation of the pure gold standard. The functions of central banks were purely ancillary ones, and even their power of issue was not designed to interfere with or supplant the controlling role of gold over the money supply. The shift from monetary automatism to monetary management was slow and gradual. The evolution of the Bank of England is most revealing in this respect.

The Bank Act of 1844 had as its objective the restoration of an unmanaged gold standard, ruled exclusively by fluctuations in the balance of

payments. Variations in the total note issue of the Bank of England would correspond exactly to the movements of gold itself in the reserves of the Issue Department. Any inflow or outflow of gold would produce a corresponding increase or decrease in the volume of money, just as would have occurred if the circulation had consisted exclusively of gold coin. The Issue Department of the Bank of England therefore played a purely passive role and could not exert the slightest influence on the volume of money.²

Whatever central banking functions this system left to the Bank of England pertained not to the Issue but to the Banking Department. No such functions however were originally intended by the authors of the Act. In the years immediately following the Bank Act, the Banking Department was regarded merely as a commercial bank "to be managed in the same way as any other private bank".³ It was only gradually, and at the initiative of the Government rather than of the Bank itself, that the special position and responsibilities of the Banking Department came to be clearly recognized and accepted by the Bank authorities. Even then these responsibilities did not extend to the broad and modern concept of monetary management but merely to the function of 'lender of last resort'. This function moreover did not imply the issue power since in principle at least fluctuations in the note issue continued to correspond exactly to fluctuations in the gold assets of the Issue Department.

As 'lender of last resort' however the Banking Department, through its credit and investment operations would relieve temporary shortages of cash in the commercial banks. In doing so it would interfere with the process of readjustment contemplated in the gold standard theory, since it would offset the deflationary internal effect of a deficit in the balance of payments and thus prevent its ultimate correction. The drain on the limited note reserves of the Department would continue until their exhaustion made it impossible for the Bank to continue its assistance to the market unless the limitation on its fiduciary issue was raised or

² The only channel for interference with market forces lay in changes in the amount of the "fiduciary issue" which was not controlled by the Bank.

suspended.⁴ Thus the "lender of last resort" operations were conceived as a mere temporary palliative, to be accompanied by other measures tending toward a fundamental readjustment similar to the one which would have taken place automatically under the pure gold standard.

The most important instrument used toward that end was the management of the discount rate. Credit was made available in times of crisis, but at higher rates which led to a general rise of interest costs and contraction of credit. In the words of the Cunliffe Committee, this would result in "a decline in general prices in the home market which, by checking imports and stimulating exports, corrected the adverse trade balance which was the primary cause of the difficulty."⁵ In this way, central banks could perform their mission of lender of last resort—could provide credit institutions, in times of need, with the liquid funds necessary to tide them over temporary panics and difficulties—while still transmitting to the economy the external pressures arising from balance of payments disequilibria under the pure gold standard system. They could expand credit in times of favorable balances and contract it, except for temporary assistance to the banks, in times of unfavorable balances. The general effect of this policy would be similar to the automatic results of gold inflows or outflows under a purely metallic monetary standard, at least as far as the direction of the movements was concerned.

The hiatus between gold and total monetary circulation introduced by deposit banking, however, could greatly increase monetary fluctuations and affect their incidence. Under a fractional reserve system of commercial banking, given the fairly stable ratio maintained by British banks between cash and deposits, the deposit component of monetary circulation would increase or decrease by several times the amount of the increase or decrease in the cash reserves of the banks. Banking expansion and contraction would also affect the cash balances of some individuals and firms which, under the pure gold standard, might not otherwise have been touched, at least directly, by the monetary fluctuations resulting from disequilibria in the country's balance of payments. Finally, because of the narrow gold base which it maintained, the Bank of England, in order to

⁴ In the first crisis following the Bank Act, the Bank refused full support to the market until authorized by the Government to exceed its legal fiduciary issue. Similar authorizations were granted, but not used, in 1857, 1866, and 1914. In the more recent period, further expansions have been made possible under the Currency and Bank Notes Acts of 1928 and 1939.

⁵ "First Interim Report of the Committee on Currency and Foreign Exchanges after the War," in T. E. Gregory, *op. cit.*, Vol. II, p. 337.

defend its reserve position, was led to follow credit policies which not only permitted but also reinforced the automatic contraction resulting from the retirement of its notes in exchange for gold. The net effect of the banking superstructure erected upon the gold standard basis was monetary fluctuations of far greater amplitude than they would have been under a pure gold standard.

The departure from the pure gold standard mechanism, implicit in the operations of deposit banks, was carried even further under the "rules of the game" so much publicized in the twenties by central bank and League of Nations experts. "Whenever gold flowed in, the central bank was expected to increase the national currency supply not only through the purchase of that gold but also through the acquisition of additional domestic assets, similarly, when gold flowed out, the central bank was supposed to contract its domestic assets also. In this way the influence of gold movements on the domestic credit base was to be magnified, and magnified in accordance with the central bank's reserve ratio. With a ratio of 33 per cent, for instance, any net increase or decrease in the gold reserve was supposed to create a threefold expansion or contraction in the total credit base."⁴

The "rules of the game" were presented as synonymous with the rules of the gold standard itself. Their effects, however, were vastly different from those envisaged by the theory. Under the pure gold standard, balance of payments disequilibria produced only an equivalent amount of expansion or contraction in the monetary circulation, while under the "rules of the game" they fostered in addition a secondary expansion or contraction many times the original one. This multiple expansion or contraction was defended as a way to speed up international readjustments and to conserve the country's international reserves, but the result was achieved only at the cost of much greater domestic instability.⁵ No wonder the "rules of the game" encountered increasing resistance, and that their breach became more characteristic of monetary policy than their observance.

The breakdown of the gold standard in the interwar period has often been ascribed in part to the unwillingness or inability of central banks

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It

Hayek *Monetary Nationalism and International Stability* (London, 1937), pp 25-32

See F. A. von Hayek *Monetary Nationalism and International Stability* (London, 1937), pp 25-32

to play the gold standard game in accordance with its supposed rules.⁸ It should again be emphasized, however, that these rules did not fit the pure gold standard theory and that consequently their observance would have impeded rather than advanced the objectives of the classical mechanism of international adjustments. Thus, the monetary policy of the United States in the twenties has often been interpreted as a "sterilization" or "neutralization" policy, and criticized as contrary to gold standard rules. In fact, however, the total money supply (deposits and currency outside banks) increased from June 1920 to December 1924 by 7.2 billion dollars, or about 4.5 times the increase in gold reserves during the same period. In 1925-29, the money supply rose by 7.6 billion in the face of a *decrease* in gold reserves. For the period as a whole, therefore, monetary circulation increased by 14.8 billion dollars, while the increase under a pure gold standard would have been less than 1.5 billion. Mr. Nurkse's discussion of neutralization policies in the United States and other countries demonstrates his point that, contrary to the "rules of the game," "central banks' international and domestic assets . . . moved far more often in the *opposite* than in the same direction."⁹ This does *not* mean, however, that the primary impact of the gold flows was fully offset or neutralized, or even that their influence on monetary circulation was not multiplied several times by commercial banking expansion. Thus, in spite of neutralization policies, gold flows may well have exerted at least as much influence on the money market as they would have under classical gold standard assumptions.

The most significant development of the period, however, was the growing importance of domestic factors as the final determinant of monetary policies. While international gold flows continued to stimulate domestic monetary expansion or contraction, the total volume of money was no longer controlled by them. Factors of a purely domestic nature also tended to shape monetary developments in a manner totally alien both to the classical gold standard mechanism and to its "rules of the game" interpretation, or rather misinterpretation. Central bank powers were no longer used to transmit automatically to the domestic economy the upward or downward pressures of surpluses or deficits in the balance of payments, regardless of national policy objectives. On the contrary, central banking policies came to be defined less and less with reference

⁸ See especially Lionel Robbins, *The Great Depression* (London, 1934).

⁹ *International Currency Experience*, pp. 68-88 and 237-40.

to the state of the gold reserves or the prerequisites of international balance and more and more in terms of domestic price stability, the promotion of fuller employment *etc* This tendency was greatly reinforced in the thirties through the general adoption of national recovery programs based on domestic monetary and credit expansion and supported by exchange control and currency devaluation. Thus the latent contradiction between the international and automatic monetary regulation characteristic of the pure gold standard on the one hand and the evolution toward autonomous and discretionary monetary management by national central banks on the other was accentuated by practical policies even though it was not readily incorporated into theoretical analysis.

The swing of the pendulum may now have reversed its direction. The experience of the thirties has demonstrated the pitfalls of monetary isolation along purely national lines and the difficulties of reconciling domestic stability and prosperity with international disequilibrium. The Bretton Woods Agreements without returning to the full subordination of national monetary policies to the single goal of exchange stability have sought to re-establish some mechanism designed to protect the international economy against autarchic excesses in the monetary field. Member countries agree to cede to the Fund a considerable measure of control over modifications in their exchange rates or the imposition of exchange restrictions. To make possible this partial renunciation of national monetary sovereignty the International Monetary Fund undertakes to make available to member countries in times of need additional exchange reserves necessary to finance temporary deficits in their balance of payments. The Fund however does not attempt to restore an automatic international monetary standard. Central banks and other national monetary authorities are left free to determine domestic monetary policies as long as they do not use the resources of the Fund in a manner contrary to the purposes of the Fund. The success of the new institution will thus depend largely on the soundness of the national monetary policies followed by its members and on the successful solution by each member country of the basic conflict between domestic goals of action and the preservation of international balance. Fundamental disequilibria if not corrected by domestic measures of readjustment would perpetuate the need for new borrowings from the Fund or would force recourse to currency devaluation or exchange control. The assistance provided by the Fund is a limited right of borrowing equivalent to a mere

increase in the members' international reserves, together with some protection against arbitrary and damaging monetary action by other members.

No attempt is made, however, to lay down detailed "rules of the game" for the new international standard which would prevent or correct fundamental international disequilibria. And yet, it is well recognized that persistent deficits in a country's balance of payments would ultimately lead to the exhaustion of its limited drawing rights on the Fund, as well as of its gold and foreign exchange reserves. Once such a situation is reached, the whole Fund machinery becomes ineffective,¹⁰ and no paper commitments can maintain free and stable exchange rates. Correction of international disequilibria is thus crucial to the successful functioning of the new international monetary standard.

THE CORRECTION OF INTERNATIONAL DISEQUILIBRIA

Notwithstanding the important divergencies between the classical gold standard theory and its modern "rules of the game" version, both types of analyses coincide in some important respects. Balance of payments disequilibria are ascribed to international cost and price disparities, and their correction is made to depend on the elimination of such disparities through automatic, or induced, domestic monetary expansion or contraction.

These views of the mechanism of international adjustment under gold standard assumptions are open to grave question. First, they fail to distinguish between a fundamental disequilibrium in one country's international position and world-wide disturbances in balances of payments associated with cyclical fluctuations. Secondly, the explanation of the readjustment of a country's balance of payments is vitiated by the underlying and totally unrealistic assumption of near-perfect competition between nations of roughly equal strength and importance in world trade.

Cyclical vs. Fundamental Maladjustments. The classical explanation of balance of payments maladjustments runs in terms of price and cost disparities between *one country* and the rest of the world. While applicable to many important instances of disequilibria, this analysis does not exhaust all possible causes of deficits in a country's international transactions. The most cursory examination of statistical data clearly shows that many of the most spectacular disequilibria in balances of

¹⁰ The day of reckoning could, of course, be postponed as long as the Fund was willing and able to grant, under Art. V, Sec. 4, additional drawing rights to meet the deficit.

payments are world wide in scope, and must be traced to cyclical fluctuations of an international character rather than to national price and cost maladjustments

In the decade prior to the war, for instance, the dollar value of world trade fell by more than 60 per cent between 1929 and 1932, increased by 23.5 per cent from 1936 to 1937, and fell again by 12.5 per cent during 1938. If the major cause of these fluctuations had resided in international price and cost disparities, it would be expected that high-cost countries would have shown a decrease in exports and an increase in imports, while low-cost countries would have shown movements in the opposite direction. The striking fact, however, is that, in spite of differences in amplitude, both exports and imports moved *in the same direction* for practically all trading countries. Clearly, the major force impinging upon their trade

31), Colombia lost 80 per cent of its central bank gold and foreign exchange reserves. Total exports fell from 122 million dollars in 1929 to 67 million in 1932, a decline of 46 per cent. Coffee, the major export item (about 60 per cent of total export values), suffered a reduction of 45 per cent. If this contraction in coffee exports had been due to disparities in production costs between Colombia and other major coffee exporting countries in competition with her, we would expect these other countries to have expanded their exports at the expense of Colombian producers. The fact is, however, that during the same period total exports and coffee exports of all other competing coffee countries were also falling in similar, or even larger, proportions. This coincidence in time of export fluctuations in these countries was also characteristic of the recovery period 1933-37, the 1937-40 decline, and the record levels of exports reached during the more recent war years. It might of course be argued that, even though no price disparity was evident as between the various coffee exporting countries, all of them were suffering simultaneously from the consequences of excessive price and cost levels as compared with the rest of the world, and that the classical prescription for readjustment still remained applicable to the group as a whole. This position, however, would be hard to defend in view of the fact that the export prices for typical coffee grades had fallen to nearly one half of their 1928 level by 1930 and to not far from one third by 1931, without resulting in any substantial recovery of quantities exported.

Indeed, for most agricultural countries, large export receipts and favorable balances of payments usually coincide with high and not with low levels of domestic and export prices. The reason for this is that their export volume and export prices fluctuate as much with demand as with supply conditions, if not more. That is, they are largely determined by international rather than domestic factors. Major fluctuations in export values result primarily from cyclical movements in economic activity and income in the buying countries, and not from changes in the relationship of domestic price or cost levels to prices and costs in other competing or buying countries. Thus, for many agricultural and raw material countries, the international cycle is mainly an imported product. Such is also the conclusion of the League of Nations' Delegation on Economic Depressions. "General depressions would seem to result mainly from fluctuations in investment and employment in industrial countries."¹¹

Whenever this is true, the classical prescription for remedial policy becomes as misleading as the diagnosis on which it is based. Deflationary efforts at readjustment by individual countries are largely self-defeating because they aggravate the depression rather than cure the disequilibrium. Any initial success that they may have in curbing imports or expanding exports aggravates the difficulties in their supply and export markets as well as in competing countries, and leads to similar and mutually offsetting measures of defense or retaliation. It should be noted that the argument applies equally to remedial action through currency devaluation and through internal price changes. Under the conditions described, both price deflation and currency devaluation spread from country to country and accentuate the international deflation. While some categories of exports may expand under the stimulus of price reductions, the expansion will often be insufficient to compensate for the decline in unit prices, especially in the case of agricultural or raw material exports faced with an inelastic world demand. The burden of readjustment then falls upon imports, the reduction of which further aggravates income contraction abroad and the effective demand for each country's exports.

The situation described presents a strong analogy with that of oligopoly, where efforts by one seller to cut into his competitors' markets are

¹¹ League of Nations, *Economic Stability in the Post-War World* (1945), p. 291. The clearest case is provided by the brief depression of 1938 in which world exports to the United States fell by over 35 per cent in a single year, while United States exports decreased by only 7 per cent. It is not denied, of course, that other factors—including price disparities—may be simultaneously operating in bringing about or accentuating a major depression.

thwarted by the competitors' retaliation and the ensuing price war. The expansionary effect of a decline in one country's prices upon its exports is largely offset by simultaneous or retaliatory price decreases by competing countries. Thus the effective elasticity of demand for one country's exports becomes merged with the much lower elasticity of world demand for products of the types the country exports.¹² Sales can be expanded on a stable basis only in so far as lower prices stimulate world consumption as a result that is not achieved through inroads into other nations' markets.

It should be noted that this analysis does not conflict in any way with the classical theory of balance of payments maladjustments. It merely applies to an entirely different set of circumstances. Cyclical disturbances of the kind assumed here played little or no part in classical analysis. The error made by later economists—and especially by the "rules of the game" school—was to extend to world wide, cyclical disturbances an analysis aimed at fundamental maladjustments between *one* economy and the rest of the world. In the latter case moderate price changes by the deficit country may restore its normal export import balance and share of world trade without depressing world prices to any significant extent. This is especially true if, as contemplated also in classical theory, its exports are broadly diversified rather than concentrated on one or a few major items. During a global depression, however, simultaneous efforts by many nations at maintaining or increasing their exports in the face of a shrinking world demand merely result in an accelerated fall of prices and reduction of export proceeds.

Gold Standard or Sterling Exchange Standard? A second assumption underlying the classical theory of the gold standard is that of near perfect competition between many trading nations, more or less coequal in importance. The assumption is obviously unrealistic, and in recent years many writers have emphasized the central position occupied by Great Britain in the nineteenth century functioning of the gold standard.¹³ It has been suggested that that position "made the prewar gold standard essentially a sterling exchange standard system"¹⁴ but the concrete implications of that assertion have not been fully drawn. If examined, they

¹² In the case of competing oligopolists, the effective demand elasticity is similarly determined by the demand curve for the industry as a whole rather than by the demand curve which would face any one seller if his competitors' prices remained constant.

¹³ See especially Willam Adams Brown, Jr. *The International Gold Standard Reinterpreted* (New York 1940).

¹⁴ *Ibid.* p. 211.

may suggest one possible explanation both for the relative success of the gold standard in Britain and for its failure to operate satisfactorily in the least industrialized nations. In many of the latter countries it was adhered to only sporadically, and abandoned in times of crisis. When actually enforced, it may well have retarded rather than accelerated the rate of their economic development. In Great Britain itself the mechanism of balance of payments readjustments seems to have operated, in important respects, in a manner directly opposite to that described by gold standard theory. To a very large extent, increases in the London discount rates brought about a readjustment in the British balances of payments, not through their effects on the British economy, but through their effects on the outside world and especially on the agricultural and raw material countries.

One of the reasons for this has long been recognized. As early as 1840 it was pointed out by Tooke before a Select Committee of the House of Commons on banks of issue, that: "The effect upon the exchange of a rise in the rate of interest would be that of inducing foreign capitalists to abstain from calling for their funds from this country to the same extent as they otherwise might do, and it would operate at the same time in diminishing the inducements to capitalists in this country to invest in foreign securities or to hold foreign securities, and it might induce them to part with foreign securities in order to invest in British stocks and shares. It would likewise operate in restraining credits from the merchants in this country by advances on shipments outwards, and it would have the effect of causing a larger proportion of the importations into this country to be carried on upon foreign capital."¹⁵

This shift in international capital movements contributed powerfully to a rapid restoration of equilibrium in the exchange market. However, it tended to relieve rather than accentuate domestic deflationary pressures on the economy, and to that extent to delay or prevent the basic readjustment of fundamental price and cost disparities contemplated by gold standard theorists. It constituted, in a sense, the equivalent of the compensatory monetary policies so strongly condemned by many gold standard theorists.

Similarly, the outflow of capital in periods of favorable balances tended to check surpluses and thus to reduce external expansionary impacts upon the British economy. This again was contrary to the "rules of the

¹⁵ Quoted by R. G. Hawtrey, *The Art of Central Banking* (London, 1932), p. 141.

game and tantamount to the opposite policy of sterilization or neutralization of gold movements

Debtor countries however did not have a similar mechanism at their disposal. Capital tended to flow toward them in times of prosperity and away from them in times of depression irrespective of their discount policy. The effect of such fluctuations in capital movements was to smooth down cyclical monetary and credit fluctuations in the creditor countries, but to accentuate them in the debtor countries. To that extent the financial centers could shift part of the burden of readjustment upon the weaker countries in the world economy. Their only mechanism of defense was the policy consistently followed by the Central Bank of Argentina in the recent past with such remarkable success to offset external drains from or accretions to its reserves through domestic policies of expansion or contraction. This was contrary to classical orthodoxy but in fact equivalent to the effects of the British discount rate on capital movements to and from Great Britain.

The readjustment of fundamental price disequilibria which changes in the British discount rate were designed to stimulate was thus thwarted and delayed by the effects of such changes on capital movements. It is still contended however that those basic readjustments would obtain in the end capital movements notwithstanding through the domestic effects of discount changes on British prices. The discount rate would be raised and credit would be contracted in order to force down excessive British prices to levels more competitive with the level of foreign prices. On the other hand the discount rate would be lowered and credit would expand when British prices were low relative to foreign prices and tended to disequilibrate the balance of payments in Britain's favor.

It should be noted that according to this theory the British deficit would be corrected through a *deterioration* of the British terms of trade (i.e. a decrease in British prices relative to foreign prices) such deterioration being considered necessary to restore the international competitive position of British producers. Logically speaking however the opposite assumption is just as plausible. That is to say the elimination of the deficit might also result from an *improvement* in the British terms of trade, decreasing the unit cost of imports and increasing the returns on exports.¹¹

Statistical evidence may be used to support either theory. During the interwar period, the British terms of trade consistently improved in depression and deteriorated during the upswing of the cycle.¹⁷ Before the First World War available data are more difficult to interpret and they reveal, if anything, sharper rises in export prices than in import prices during the crest of the boom. Indexes of export prices for that period, however, give relatively little weight to manufactured products and do not appear to be truly representative of British exports in general.

As far as the discount rate is concerned, the interwar period is of minor interest for the elucidation of the problem under consideration. The discount policy had ceased by then to be a major instrument of monetary control and, moreover, Britain was no longer the dominant financial center of the world. In the 30 years prior to the First World War, however, the statistical series fail to confirm the traditional view that an increase in discount rates contributed directly to a lowering of British prices relative to foreign prices. On the contrary, all major rises in the discount rate are associated with an improvement of the British terms of trade, *i.e.*, with an increase in export prices relative to import prices.¹⁸ The declines in the terms of trade followed the increases in the discount rate only after a considerable lag, and actually coincided with decreases in the rate. Their most obvious explanation would seem to lie in depressed business conditions in Britain, associated with the spread of the international cycle, rather than in any direct influence of the discount rate over domestic prices.

This improvement in the British terms of trade in periods of rising discount rates should not be surprising, in view of the special position of Britain as a financial center for world trade. On purely *a priori* grounds, it would appear at least as probable as the opposite pattern contemplated by the classicists. What was really discussed by them was the case of price disparities between one country and a large number of other countries, equal to the first in importance. Under that assumption, deflation

¹⁷ The ratio of export to import prices, calculated from Board of Trade indexes, declined from 104 in 1923 to 98 in 1929, rose during the ensuing depression to a peak of 122 in 1933, fell to 107 in the relatively prosperous year 1937, and improved again to 116 during the 1938 recession.

¹⁸ Thus the yearly average of discount rates rose gradually from 2.9 per cent in 1885 to 4.5 per cent in 1890, while the ratio of export to import prices improved from 91 to 106. The next sustained rise in the rate, from 2 per cent in 1895 to 3.9 in 1900, was accompanied by an increase in the ratio from 97 to 114. The same positive correlation between rising rates and better terms of trade continued until the outbreak of war.

by the first country would force down domestic prices and costs without affecting to any significant extent the level of prices in the rest of the world. The position of Britain in the nineteenth century was however a very different one. Britain was the major center of world trade and finance and British deflationary efforts immediately affected, not only the British economy and prices but also the economy and prices of other countries transmitting to them the cyclical fluctuations experienced by Great Britain. Thus the problem became essentially one, not of disparities between one country and the others but of a simultaneous upward or downward movement engulfing most other nations along with Great Britain.

We have already seen that the most immediate effect of a rise in the British discount rates was to reverse the normal direction of international capital movements. The outflow of funds from the other countries toward Great Britain exerted an immediate downward pressure on prices and income in those countries. In fact since the great bulk of foreign exports was financed through London and since foreign bills far outweighed in land bills in the London discount market a tightening in discount rates could be expected to affect the prices of foreign goods more drastically and directly than domestic prices in Britain. The reverse would be true in the case of a credit relaxation or expansion in London. These movements would be further magnified by the banking contraction or expansion thus induced in the foreign countries themselves, especially as higher discount rates in those markets would tighten domestic credit without attracting as they did in London compensatory capital movements from abroad.

These considerations are reinforced by the fact that a large part of Britain's exports consisted of manufactured industrial products, while the bulk of her imports was composed of foodstuffs and raw materials. Less flexibility of demand and supply conditions could be expected to make the prices of the second category of goods especially sensitive to credit contraction and expansion as well as to general cyclical fluctuations.

The failure of British discount policy to effect the type of readjustments contemplated in classical theory is thus easily understandable. It was due primarily to the *international* character of the London discount market whose expansion and contraction affected foreign prices as much as or more than British prices. It is also explainable by the fact that

producers of agricultural and raw materials are more vulnerable to cyclical and credit fluctuations than is the British economy.¹⁹

A POSITIVE POLICY FOR THE INTERNATIONAL MONETARY FUND

One main conclusion emerges from the foregoing analysis. The "rules of the game" of the twentieth century gold standard, no matter how valid they may be in the case of isolated fundamental disequilibria in one country's or a few countries' international accounts, are totally inappropriate for dealing with world-wide cyclical fluctuations. The main result of "orthodox" gold standard policies under such circumstances was to spread throughout the world at large any cyclical disturbance arising in major industrialized nations. Balance of payments deficits would be corrected in the end, but mostly through a general contraction in income and economic activity, rather than through direct price readjustments. Furthermore, the accompanying price changes would leave in their wake a basically unbalanced structure of international prices when the cyclical depression subsided and more normal conditions were restored.

The success of the International Monetary Fund will largely depend on the progressive development and general acceptance of new canons of international monetary behavior, to replace the previous "rules of the game" code. These new standards of policy should be less crude in their application, and more acceptable to the national monetary authorities of member countries. They should recognize the primacy of domestic goals of stability and high levels of economic performance, and distinguish strongly between cyclical and fundamental disequilibria in the balances of payments.

Anti-cyclical Monetary Policies. The International Monetary Fund has proclaimed that one of its main purposes is "to facilitate the expansion and balanced growth of international trade, and to contribute thereby to the promotion and maintenance of high levels of employment and real income and to the development of the productive resources of all members as primary objectives of monetary policy."²⁰ This formulation recognizes the basic agreement and interdependence of national and international monetary objectives. A large volume of world trade obviously contributes to domestic prosperity. Conversely, domestic prosperity in one country

¹⁹ A somewhat similar observation is made by R. G. Hawtrey in *A Century of Bank Rate* (London, 1938), p. 44, but is not systematically related to the general theory of balance of payments readjustments, which it so clearly contradicts.

²⁰ Articles of Agreement of the International Monetary Fund, Art. I (ii).

redounds to the benefit of other members by maintaining effective demand for imports and thus encouraging exports and production in other areas. The responsibility of the largest and more industrialized countries is especially heavy in this respect. Major depressions usually originate with them rather than with smaller agricultural nations and are especially contagious internationally because of the weight these countries have in world trade and finance. The only satisfactory corrective of cyclical disequilibria in the balance of payments which are not due to fundamental maladjustments in international price levels thus lies for most nations not in internal deflation according to the "rules of the game" recipe but in the restoration of economic activity and purchasing power in the centers of the cyclical disturbance.

Balance of payments disequilibria however will continue to occur and to threaten domestic stability especially in countries with undiversified economies heavily dependent on international trade and especially on one or a few export products for which demand is inelastic. Variations in weather and crop yields as well as cyclical fluctuations in the major world markets will result in alternate phases of favorable and unfavorable balances reflected in inflationary and deflationary pressures on incomes, cash balances, prices and costs. Such disequilibria will be of a temporary character and the country should attempt to offset them to the largest possible extent by domestic compensatory policies. In doing so it will contribute to international stabilization as well as to the maintenance of domestic levels of income and activity. In the absence of compensatory action—and even worse if the automatic upward or downward pressures are reinforced in accordance with the "rules of the game" by secondary domestic expansion or contraction—not only national but also international balance will be needlessly sacrificed since domestic adjustments to temporary disturbances of equilibrium will result in basic maladjustments once the temporary factors cease to operate and more normal conditions are restored.

Anti-cyclical compensatory policies would thus in general help to moderate both national and international depressions and to preserve fundamental international balance. Their generalized adoption however would tend to amplify the instability of national reserves of gold and foreign exchange. As long as the temporary factors of disequilibrium are present reserves will move from the deficit to the surplus countries unchecked by counteracting movements in prices, exchange rates or

national incomes. This redistribution of reserves, even though temporary, creates a serious problem. The receiving countries accumulate funds which will help them to meet later deficits, but for which they have no immediate use or need. On the other hand, the drain on the reserves of the deficit countries may be such as to make a continuation of compensatory policies incompatible with the preservation of free and stable exchanges. It is precisely this situation which the International Fund is so well organized to meet. The drain of reserves is arrested, or moderated, by an indirect extension of credit by the surplus countries to the deficit countries, through their accounts with the Fund. In this manner the deficit countries are enabled to avoid recourse to internal deflation, currency devaluation, exchange control, or other restrictive policies, while the lending of unneeded accretions to reserves by the surplus countries protects them against the contractionary effects which such measures of defense would exert on their exports and domestic economic activity.

One of the main dangers of the system is the abuse of the Fund's credit for the financing of fundamental, as opposed to cyclical or fortuitous, disequilibria in a country's international account. In that case, the borrowings would assume a continuous character, and indebtedness to the Fund would pile up rapidly until the country's quota was exhausted. Adequate safeguards must be provided against such abuse of the Fund's machinery, and toward the application of effective remedial action.²¹

In the first place, a deficit country should be required to make the fullest possible use of its own international reserves. In the Fund's Charter this problem is approached in an indirect and incomplete manner through the application of the so-called "repurchase provisions."²² Further progress in this direction appears highly desirable in the long run, through amendment, interpretation, administration of the Fund's statutes, or through the Fund's powers of moral suasion. Such action, however, will meet considerable resistance, based on the still prevalent misinterpretation of the role of monetary reserves. In many countries monetary legislation as well as public opinion still regards the central bank's gold and foreign exchange reserves as the "backing" of the currency. Reserve ratios between gold and foreign exchange holdings and the central bank's note issue or total sight obligations are viewed by the public as an indication of the currency's soundness, and are generally subject by law to minimum requirements. This deep-rooted tradition bars the effective

²¹ See below, pp. 75-78.

²² Articles of Agreement, Art. V, Sec. 7.

employment of reserves at the time when they are most needed and for the only economic purpose which they can usefully serve

This anachronistic conception of central bank reserves dates back to an entirely different institutional environment, in which gold coin effectively circulated as the ultimate legal tender, and central banks were under strict legal obligation to convert their notes into gold, not only for balance of payment purposes but also for internal circulation within a country. In practice gold coin does not circulate today as money, and bank notes have become the ultimate legal tender for domestic payments. The only purpose of a gold or foreign exchange reserve is, therefore, to provide available resources to meet, without undue pressure on the currency, a deficit in the balance of payments.²² All member countries should be induced to accept this viewpoint and to liberate their reserves for effective use in case of need.

Recourse to foreign borrowings outside the Fund is a second possible line of action in case reserves are not adequate to meet a drain. This would be especially valuable to meet specific rehabilitation or developmental expenditures the financing of which is outside the scope of the Fund. Financing could be obtained through private investments or through the help of such institutions as the International Bank for Reconstruction and Development, the Export-Import Bank, etc.

The third practical device is the husbanding of reserves for the most urgent needs through a system of priorities in allocating available exchange. Unfortunately the very mention of 'exchange control' raises such emotional reactions with many people as to prevent any serious discussion of the subject. The history of exchange control in the last two decades is such as to justify fully the condemnation of most exchange control systems used in the past. It does not, however, justify a blind condemnation of exchange controls as such, irrespective of their concrete forms and of the circumstances leading to their adoption. In some cases blackmail and aggression. In other cases, however, it has been adopted as the result of sheer necessity and as a lesser evil. The statesmen who introduced exchange control in so many countries were not necessarily blackguards or fools. Their motives should be understood and while every effort should be made to prevent abuses or unnecessary restrictions

²² The "war chest" argument falls within the scope of this definition, although recent procedures of foreign funds controls weaken greatly the value of gold for purchases in enemy or even neutral, countries.

the real purposes which nondiscriminatory controls can justifiably serve should not be summarily dismissed. Constructive criticism may succeed where dogmatic and purely negative opposition has failed and will probably remain as sterile in the future as it has proved in the past.

Both a member country and the Fund may prefer self-denial through exchange restrictions to excessive borrowings, internal deflation, or exchange depreciation. Provision is made for some such cases in the Fund Agreement itself. First, the Fund gives the members full freedom "to exercise such controls as are necessary to regulate international capital movements" not connected with payments for current transactions or settlement of commitments.²⁴ Members are even prohibited, in principle, from making net use of the Fund's resources "to meet a large and sustained outflow of capital, and the Fund may request a member to exercise controls to prevent such use of the resources of the Fund. If, after receiving such a request, a member fails to exercise appropriate controls, the Fund may declare the member ineligible to use the resources of the Fund."²⁵

Secondly, the demands made upon the Fund for a member's currency may exceed the Fund's ability to supply it. In that case, the Fund may ultimately be forced to declare such a currency scarce and to ration its supply among the members applying for it. Such a declaration "shall operate as an authorization to any member, after consultation with the Fund, temporarily to impose limitations on the freedom of exchange operations in the scarce currency."²⁶

Finally, the Fund *may* authorize a member country to "impose restrictions on the making of payments and transfers [even] for current international transactions."²⁷ The case would be especially likely to occur when a country has exhausted its drawing rights, under Article V, Section 3 of the Agreement, and when, at the same time, the Fund is reluctant to give, under Section 4, special approval for further borrowings. The only alternative to such authorization would then be either the enforcement of strong deflationary policies—the results of which might, in any case, prove too slow to solve the immediate exchange problem—or currency devaluation. Again, either of these alternatives would be highly undesirable in the case of cyclical or temporary disequilibria.

²⁴ Articles of Agreement, Art. VI, Sec. 3.

²⁵ *Ibid.*, Art. VI, Sec. 1.

²⁶ *Ibid.*, Art. VII, Sec. 3 (b).

²⁷ *Ibid.*, Art. VIII.

Exchange control may possibly be preferred to excessive loss of reserves and borrowings from the Fund even before reserves and drawing rights have been exhausted. A country may feel that borrowings should not be resorted to on a very large scale for the sole purpose of financing imports of a purely sumptuary character. The Fund might concur with this view and authorize some exchange restrictions rather than force further and unwanted loans upon the country. Such an attitude on the part of the Fund's authorities would not be unlikely in view of the specific limitations placed by the Fund Agreement upon the use of the Fund's resources to finance capital outflows. While not identical, the two cases present some broad similarities. The general tenor of the Chapultepec discussions on the desirability of husbanding for the purpose of economic development, reserves acquired in wartime is in harmony with this view.

The creation of the International Monetary Fund, therefore, should not be interpreted as definitely removing even after the expiration of the transition period all justification for and possibility of exchange control measures by member countries. The Fund will greatly reduce the need for exchange control and set up safeguards against unnecessary or discriminatory restrictions. It will not and should not blindly and flatly prohibit all use of legitimate controls as an instrument of monetary policy when temporary exchange shortages make them the only alternative to drastic deflationary policies or to currency devaluation. As has been indicated above price or currency adjustments may often be wholly inadequate to correct balance of payments deficits except through the resulting contraction of national income and effective import demand. This is especially true in the case of agricultural or raw material producing countries faced with an inelastic demand for their exports. Moreover, since only a fraction of a country's total income is spent abroad the balancing of foreign transactions by contraction of national income is likely to require a decline in the income level several times as great as the deficit to be resorbed.²² This is clearly undesirable on national grounds and does not in any way lessen the unfavorable impact of import contraction on world trade. On the contrary, it aggravates the difficulties of competing exporting countries. Finally it corrects a temporary distortion once the transient factors of disturbance have disappeared. Under such circumstances temporary and selective controls of expenditures

²² More strictly speaking this will depend on the "marginal propensity" to import and on the elasticity of export supply and demand.

abroad are far preferable to indiscriminate and multiple income adjustments.

The efforts of the International Monetary Fund should thus be directed, not toward indiscriminate abolition of all exchange controls, but toward the elimination of the abuses which have often characterized them in the past.

The most patent and most crucial defect of exchange control lies in the discriminatory practices to which it lends itself. As long as exchange is rationed on an individual basis, through arbitrary decisions of the national agencies entrusted with the application of the controls, any allocation will be open to the accusation of incompetence, favoritism, or dishonesty in the distribution of the scarce exchange among importers as well as among supplying countries or firms.²⁹ Such a procedure, however, is by no means inevitable.

A promising alternative would be to enforce exchange restrictions through flexible and impersonal market forces, leaving the importers free to buy *whatever* they please *wherever* they please (presumably from the cheapest source of supply), subject only to such automatic restrictions as would normally result from the free interplay of supply and demand. More concretely, what is suggested is a well-organized plan whereby all of the current exchange receipts available to the monetary authorities is offered for sale in the manner described in the following paragraphs.

(1) The monetary authorities would make exchange freely available, without previous permit or restrictions of any sort, at the normal exchange rates, for payment of all essential and urgent imports or services and of contractual obligations, dividends, or reasonable amortization on approved foreign investments.

(2) The remainder of available exchange would be sold by the monetary authorities to provide means of payment for deferrable or nonessential imports and services, again without quantitative restrictions or import permits, through the functioning of one, or a few, auction markets. In

²⁹ International acceptance of a "previous representative period" criterion as an objective guide for allocation might help to some extent, but would be of limited value. First, it could not serve as a pattern for commodity allocation, since any rationing of scarce exchange *should* change the "representative" pattern of imports in favor of more essential and against less essential imports. Secondly, the "previous representative period" criterion tends to freeze the channels of trade in a very arbitrary and uneconomic manner, especially when it becomes necessary to go far back into the past to discover a "representative" period. Structural changes brought about by the war make it extremely difficult to accept prewar patterns as representative. Difficulties are even greater in the case of the many countries in which prewar trade was subject to import quotas and exchange control regulation.

other words, the limited supply would be distributed among the buyers not by administrative decision, but as a result of an impersonal pricing mechanism

In order to provide the central bank with sufficient exchange to assure the functioning of these two markets—the normal and the auction—all exchange proceeds from exports or other easily controllable sources would have to be sold at the normal exchange rates, to the monetary authorities. On the other hand, exchange proceeds from unimportant or practically uncontrollable transactions could be freely sold and bought in a free exchange market. This would avoid giving a premium to illegal transactions, where evasion cannot be effectively checked, and would also provide an escape valve for the control system. Capital exports, beyond those which have access to the official market, could be channelled here without harmful repercussions on the rates applying to more essential exchange requirements. The higher rates prevailing on the free market in times of crises would moreover tend to discourage capital exports and encourage capital imports.

The advantages of such a plan are clear. It would eliminate at the root arbitrary and discriminatory allocation of exchange, drastically simplify the administrative machinery, red tape, and delays, and reduce the possibilities of graft or favoritism in the distribution of exchange permits. From the international point of view, the main objection raised quite properly against the traditional forms of exchange control would also disappear. Nothing in the system would tend to destroy, or even weaken, a multilateral system of world trade. No distinction need be made between the various currencies bid for on any auction market, on the contrary, all auction premiums should be uniform, in percentage terms, for any one category of transactions, no matter what foreign currency is involved. The exact currency requested need not even be specified until the bidding is over and the exchange allocated. Indeed, as long as interconvertibility of currencies is maintained, the central bank would have no justifiable incentive to sell one currency in preference to another.¹¹

This method of procedure would enable the Fund to judge whether exchange control is justified in the particular circumstances and also to supervise exchange control. The plan would not be contrary to the expressed purposes of the Fund, although at first sight it might appear that the differential rates implied in the functioning of the auctioning and

¹¹ The case of inconvertibility will be discussed below, pp. 73-74.

free exchange markets might be interpreted as a multiple currency practice. It must be recalled that the problem before both the Fund and the country is the allocation of a limited quota of exchange among various claimants and that some method of restriction is both basic and inevitable. It should be noted that the Fund Agreement (Article VIII, 3) specifically permits the adoption of multiple currency practices provided approval has been obtained from the Fund. Indeed, the Fund's approval is necessary, not only for this case, but for the more general one of any system of controls on current transactions (except as applied to scarce currencies, or under the transitional arrangements of Article XIV).

More than that, however, the exact meaning of the "multiple currency" clause is open to question. The system here proposed does not constitute a multiple currency practice at all, if the term is interpreted to imply the setting up of different exchange premiums as between currencies. As pointed out above, no distinction is allowed as between currencies, but only as between different categories of transactions, irrespective of the currencies involved.

Secondly, the auction and free market premiums are completely flexible, and would not—as would *rigid* multiple rates—introduce any effective restriction on exchange transactions independent from and additional to the basic and inevitable restriction resulting from the allocation among various claimants of a limited quota of exchange. Since under the proposed system the monetary authorities would be forced to *sell fully that quota* for whatever rate was offered in an open auction, the rate itself would not in any way constitute an independent or additional restriction. Foreign exports to the country would be limited only by the application of the quota, and would be in no way influenced by the fact that the exchange rate diverged from normal. The only significant effect would be a purely domestic and entirely desirable one, *i.e.*, the recapture by the monetary authorities of the unjustified windfall profits that would otherwise accrue to importers.

It should be kept in mind that any scarcity of exchange which reduces imports below the normal demand at the official exchange rates tends to drive up domestic prices no matter what the exchange rate charged to the importers to which exchange is allocated may be. In the absence of price control and rationing, the importers would be led to charge what the traffic would bear, or would distribute their short supplies in an arbitrary and capricious manner. While price control and rationing might reasonably be expected for essential goods of mass consumption, in most

countries they would not normally be extended to sales of luxuries and semi luxuries or would not be effectively enforced. Under the auction system the importers would be forced to compete with one another for the exchange offered for sale. Such competition would drive the rate to but not beyond the point at which profits would be close to competitive levels under competitive pricing conditions. Special problems might of course arise in the case of collusion or monopolistic practices by the sellers but these would arise as well under a system of administrative allocation. They could be taken care of as far as is administratively and politically feasible without modifying the basic mechanism of control suggested above.

It might be observed in passing that any system of tariff duties is equivalent to very real and rigid multiple currency practices. The very fact that objections to tariffs are so much milder than objections to multiple exchange rates again suggests that we often tend to fight words rather than realities. If the problem is viewed without dogmatic preconceptions it will be realized that the allocation of scarce exchange through a free auction system carries no restrictive element that is not implicit in the limitation placed on the amount of exchange made available to the market. On the other hand it presents the tremendous advantage of eliminating or restricting considerably the opportunity for favoritism or discrimination on the part of the exchange authorities.

The supervision of exchange control by the International Monetary Fund will not be limited to the avoidance of discriminatory administration of the controls. The Fund will also want to judge whether exchange control as such is justified in the concrete circumstances under which a member country requests permission to adopt it. As the Fund gets under operation it will have to develop certain general and objective criteria for granting or denying such requests in order to avoid arbitrary, discriminatory or merely haphazard decisions which would soon breed ill will among the members and endanger their loyalty to the institution. The problem is most acute for the smaller countries whose vote in the Fund's councils will necessarily have little weight in reaching a decision. These countries should be guaranteed an impartial treatment based on as objective rules and principles of policy as can be practically devised by the Fund.

One of the first criteria to be taken into consideration is clearly the level of international reserves of the country requesting the authorization for the establishment of exchange restrictions. The appraisal of the adequacy

or inadequacy of these reserves, from the point of view of balance of payments needs, cannot be gauged with reference to the traditional reserve ratios relating gold and foreign exchange holdings to note circulation or sight obligations. What is here relevant is the ability of the country to finance from its own reserves foreseeable deficits in its international transactions. From this point of view, reserves should first be expressed as a percentage of the normal requirements for payments abroad, *i.e.*, of total annual sales of exchange by the banks. A reserve ratio of 30 per cent, for instance, would mean that the central bank could maintain a free and stable exchange market for one year in the face of a 30 per cent deficit in the balance of payments, or for two years, in the case of a 15 per cent deficit. Calculated in this way, the level of reserves would indicate the extent of the breathing spell which the monetary authorities would have while waiting for an automatic improvement in the balance of payments in cases of temporary disequilibria, or for the readjusting effect of any corrective policy which they think advisable to adopt when the deficit is deemed to be of a persistent or fundamental nature. If the length of such breathing spell were too short, the country might be given authorization for direct restrictions over exchange sales.

Whether a 15, a 30, or a 50 per cent reserve is deemed sufficiently critical for the introduction of exchange control would, of course, depend upon the previous balance of payments experience of the country in question. A country subject to sudden and violent fluctuations in its export trade should be recognized as needing a higher critical reserve level than a country with more stable sources of foreign exchange receipts. Maximum variations in exports or exchange receipts in the past might serve as an objective indication in helping to determine the critical reserve level.

A weaker but possibly valid claim for measures of control might be made when gold and foreign exchange reserves experienced a violent and sustained decline, even though they remained above the critical level agreed upon between the Fund and the member country. The argument in such a case would be based, as in the Chapultepec discussions, upon the desirability of limiting the expenditure of reserves for luxury imports, capital flight, *etc.* Milder controls would suffice in such a case, while stronger controls might prove unavoidable if the introduction of the controls had to wait until the critical level had been reached.

As long as currency interconvertibility is maintained, no distinction need be made between the various currencies included in reserves, or

between currencies and gold. On the other hand, a country should be allowed to maintain exchange freedom in general, while restricting the sales of a currency in short supply—in accordance with the criteria discussed above—provided that the currency in question could not be procured through the Fund or through the normal conversion into such currency of other international reserves at the disposal of the country. It would, indeed, be absurd to enforce general restrictions against all imports because of the unavailability of one, or a few, currencies,²¹ and the scarce currency clauses of the Fund Charter²² make such a case an exception to the general principle of nondiscrimination and multilateralism.

The abuses and discriminations resulting from the blocking of some currencies cannot be blamed on the country subject to the blocking. Responsibility for the maintenance of interconvertibility and multilateralism properly belongs only to the International Monetary Fund and to the blocking countries themselves.

The Fund will also want to guard against retention of exchange restrictions beyond the period in which they are required by the balance of payments situation. The system outlined above would solve this difficulty without necessitating further action by the Fund. Indeed, the control system would be self liquidating, since the auction and free market premiums would automatically decrease and vanish as the exchange situation improved. If such improvement did not take place within a reasonable period the disequilibrium of the balance of payments should be recognized as fundamental rather than temporary and corrective measures rather than exchange control should be regarded as the proper remedy to adopt. The Fund might encourage this change by reviewing periodically, say once a year, the authorization granted to resort to exchange control.

These proposals are not theoretical. They have been recently embodied in the basic monetary legislation of Paraguay and Guatemala and are currently under discussion in other countries.²³ The Guatemalan law, especially, indicates in great detail the precise mechanism whereby the suggestions made here can be embodied in a practical manner. Both laws, however, express only the limitations to which these countries sub-

²¹ For a discussion of this point, see League of Nations *Economic Stability in the Post War World* (1945) pp. 245-47.

²² Art. VII.

²³ See Decreto-Ley No. 10043 que establece el regimen de cambios de la República del Paraguay (Asunción Paraguay) Aug. 29 1945 and Ley Monetaria (Guatemala City Guatemala) Dec. 10 1945. A translation of the latter legislation was published in the *Federal Reserve Bulletin*, March 1946 pp. 259-69.

jected their freedom of action on their own initiative. Further safeguards might of course be desirable on an international plane, through the administration of the Fund's own powers with respect to exchange control.

Fundamental Readjustments. The main emphasis of this paper has been on the inappropriateness of traditional readjustment policies as a remedy for temporary or cyclical disequilibria. The opposite danger—*i.e.*, the failure to adopt readjustment policies in the case of fundamental disequilibria—also faces the Fund, but it has been so widely discussed elsewhere that a few comments will suffice here.

In any case of persistent disequilibrium in one country's economy as a result of inflated price or income levels, corrective measures should be applied. Neither the use of the country's reserves, nor borrowings from abroad, nor exchange control would have any remedial influence on the disequilibrium. While this would also be true in the absence of any International Monetary Fund, there is a danger that financial assistance available from the Fund would be used in order further to postpone indispensable readjustments. The country's indebtedness would then grow without lasting domestic benefit, and the resources of the Fund would be wasted in a manner directly contrary to the objectives of the institution.³⁴ The Fund, however, can protect itself against such abuses, not only through the ceilings placed on each country's presumptive borrowing rights, but also through the application of Article V, Section 5 of the Fund's Charter.

The diagnosis of a fundamental disequilibrium, however, is not an easy task. A deficit in a country's balance of payments is not necessarily evidence of an excessive and untenable level of domestic, as compared with international, prices. Contrary to the "rules of the game" concept, it should not, therefore, be taken as a signal for deflationary policies. Compensatory action should be preferred, and supported by the Fund, whenever the deficit can be ascribed to accidental causes, such as a crop failure, or to a cyclical world depression. Similarly, a favorable balance of payments, not associated with international cost and price disparities, should not be viewed as requiring expansionary policies which are disruptive of domestic stability and conducive to inflationary price rises.

Before the existence of a durable disequilibrium calling for corrective

³⁴ One of the purposes of the Fund stated in Art. I (vi) is "to shorten the duration and lessen the degree of disequilibrium in the international balances of payments of members."

measures is assumed additional evidence should be studied and weighed. Any fundamental disequilibrium would manifest itself, not only in a deficit in the balance of payments but also in monetary and banking statistics, price and production data *etc.* Such series, as well as the course of the balance of payments, should be compared with the experience of other countries and especially of those of similar economic structure but subject to different domestic influences and policies. Only in this manner can a proper diagnosis be arrived at and an adequate policy determined.

Where clear evidence is lacking arbitrary decisions are unavoidable. The deficit country should probably be given the benefit of the doubt and be allowed to pursue compensatory policies for a time with the help of the Fund and possibly under the additional protection of exchange control when needed. This interpretation would be confirmed by events if the deficit did in fact disappear within a normal period of time. The decision would have to be reversed and corrective policies would have to be applied however if the deficit continued to pile up, the country's indebtedness to the Fund or if the need for exchange control persisted, with sustained and substantial premiums on the auction and free exchange markets.

Just as a mere balance of payments deficit is not conclusive evidence of a fundamental disequilibrium, the absence of such a deficit is not conclusive proof of a fundamental equilibrium in a country's international position. In the absence of compensatory action by the monetary authorities a fundamental disequilibrium may fail to be reflected in any balance of payments deficit owing to the prompt transmission of external deflationary pressures to domestic prices and incomes. One of the clearest cases of a fundamental disequilibrium owing to currency overvaluation is the experience of Belgium following the devaluation of the British pound in September 1931. And yet both the balance of trade and the balance of payments improved rather than deteriorated during most of the overvaluation period. The average import surplus fell from 4.3 billion francs a year in 1929-30 to 0.8 billion in 1932-34 and the official gold and foreign exchange reserves of the country remained nearly unchanged at a level of 15 to 16 billion francs until the end of 1933.²⁵ The impact of the disequilibrium was thus felt not in a deficit in the balance of payments but in a drastic decline in economic activity and incomes, especially in

²⁵ A decline to 12.5 billion francs in the latter part of 1934 is to be ascribed primarily to capital flight, prompted by the approaching devaluation of the currency.

the so-called "nonsheltered" industries which were in competition with foreign firms in the national or international markets.³⁶

It has been argued recently that a country subject to such pressures should attempt to protect itself through domestic compensatory policies, but should not be allowed to devalue its currency unless and until these policies had led to an actual deficit in the balance of international payments.³⁷ This attitude is open to serious objections. First, it would lead to unnecessary disruptions, since labor and other economic factors would have to be uprooted and transferred into temporary activities, such as public works for instance, and then returned to their normal field of employment when currency devaluation again made it profitable and economic. Secondly, the scope of compensatory action might be relatively limited, especially in undeveloped countries heavily dependent on the exportation of primary products. For such countries, currency devaluation would often be the most direct, or even the only effective, way of maintaining domestic levels of income.

It is true, however, that devaluation should not be regarded as a proper and legitimate remedy for any domestic depression, whatever its origin; but neither should it be regarded as legitimate and desirable merely because a country is experiencing balance of payments difficulties. The Belgian case showed clear evidence that external pressures resulting from the undervaluation of the pound with respect to the franc were at the root of a severe domestic depression, but this evidence did not emerge from balance of payments data. On the other hand, balance of payments deficits are often the result of cyclical rather than fundamental disequilibria, and devaluation in such cases would usually be a most undesirable remedy from the national as well as the international viewpoint.

Thus, the relevance of the balance of payments to the definition of a "fundamental disequilibrium" is of a subtler kind than is often imagined. There may exist a fundamental disequilibrium in a country's economy, even in the absence of any actual balance of payments deficit. On the other hand, a deficit in the balance of payments may be due to cyclical, or accidental, rather than to fundamental maladjustments. We might define tentatively a fundamental disequilibrium as "a maladjustment in a country's economy so grave and persistent that the restoration or

³⁶ See Robert Triffin, "La théorie de la surévaluation monétaire et la dévaluation belge," *Bulletin de l'Institut de Recherches Economiques* (Louvain, Belgium), November 1937, pp. 19-52.

³⁷ See Gottfried Haberler, "Currency Depreciation and the International Monetary Fund," *Review of Economic Statistics*, Vol. XXVI (November 1944), pp. 178-81.

maintenance of satisfactory levels of domestic activity, employment, and incomes would prove incompatible with equilibrium in the balance of payments if not accompanied by extraordinary measures of external defense such as a change in the exchange rates, increased tariff or exchange control protection *etc*

The latter part of this definition also suggests that devaluation is not necessarily the only or even the most appropriate, remedy for a fundamental disequilibrium. The language of the Fund Agreement is interesting in this respect. Members agree *not to propose* a change in the par value of their currency except to correct a fundamental disequilibrium. The Fund, however, shall concur in the proposed change only if it is satisfied that the change is necessary to correct the disequilibrium (Article IV, Section 5 (a) and (f)). Thus a fundamental disequilibrium is considered by the Fund as a necessary but not as a sufficient condition for currency re-adjustment. In some cases other methods of correction may be preferable, from a national as well as from an international standpoint.

For instance the difficulties of the Chilean nitrate industry following the development of synthetic nitrates were of a fundamental character and had a deep impact on the international balance of the country. Devaluation even though probably unavoidable under the circumstances, could not by itself have been expected to rectify the Chilean economy. Domestic monetary and fiscal policies, changes in the tariff structure, diversification of production and modernization of industrial and agricultural techniques (possibly with foreign help) might have been better remedies than currency readjustments or at least their indispensable complements.

A specially interesting case is the one of colonial economies in which income expansion may lead rapidly and directly to balance of payments disequilibria through its effects on luxury imports, tourist expenditures abroad, capital exports and the like rather than through any upward pressure on domestic wage and cost levels. Devaluation is a blunt and indiscriminate instrument and may often be less efficient than selective policies designed to plug the main leaks in the balance of payments, with a minimum impact on basic economic activities and on production and living costs.

Devaluation is also of limited value as a remedy for pervasive maladjustments whether cyclical or fundamental affecting simultaneously a large number of countries. Agricultural overproduction for instance, may simultaneously disrupt the international balance of all the competing

countries whose exports are largely concentrated on the overproduced commodities. Concerted international action designed toward readjustment would be preferable in this case to cut-throat competition through lower prices or currency devaluation. The lack of balance between supply and demand should be gauged, moreover, not with relation to abnormally low levels of demand associated with a world depression, but in terms of normal requirements. The ever-normal granary concept should be extended beyond national borders through international commodity agreements. It is true that such agreements may lead to opposite abuses and to artificial efforts to maintain prices permanently at higher than competitive levels. The dilemma, however, is an inescapable one. Unfettered competition in a market dominated by a few large sellers cannot ensure the maintenance of competitive prices. It may often lead either to cut-throat underselling, monopolistic pricing through formal or informal cartel agreements, price leadership, or other restrictive practices. This is true at the international as well as at the national level. International commodity agreements should be so organized as to prevent domination of policies by vested interests of the producers or their governments. Broad representation of consuming countries, together with the adoption of automatic or semi-automatic indicators, might help to avoid major errors. In the long run, however, policy decisions can never be dissociated from responsibility. The refusal to take action is no solution in the face of the breakdown, or unavailability, of the impersonal, competitive mechanisms which, in classical theory, justified noninterference with market forces.

CONCLUSION

The classical theory of international balance and of readjustments to balance of payments disequilibria focusses on disparities in a single country's price and cost levels with relation to the rest of the world. Under such conditions, domestic deflation—if costs are not too rigid—or currency devaluation may be able to bring about readjustment through the restoration of the country's competitive position in world markets.

This doctrine was mistakenly extended, especially by the "rules of the game" adherents, to world-wide cyclical disequilibria, originating in one or a few highly developed and industrialized countries. Efforts by other countries to correct resulting balance of payments deficits, either through price deflation or exchange devaluation, were then thwarted because such action by any one country or group of countries aggravated

the difficulties in their supply and export markets, as well as in competing countries, and led to similar and mutually self-defeating measures of defense. Price deflation and devaluation spread from country to country without increasing export receipts, especially if world demand for a nation's exports is relatively inelastic.¹¹ The situation presents a strong analogy with that of oligopoly, where each effort by one seller to cut into the competitors' markets is thwarted by the competitors' price retaliation. Thus the actual elasticity of demand for one country's exports is merged with the much lower elasticity of world demand for those products. Sales can be expanded only in so far as lower prices stimulate consumption and not through inroads into the competitors' sales.

The main result of such policies is therefore to spread throughout the world any cyclical disturbance arising in a major economic area. Balance of payments deficits may be corrected in the end, but mostly as the result of a general decline in income and economic activity. Furthermore, the accompanying price changes leave in their wake a basically unbalanced structure of international prices when the cyclical depression subsides and more normal conditions are restored.

Whenever balance of payments disequilibria are due, not to international price disparities but to accidental factors or to cyclical fluctuations in foreign income and demand, compensatory policies should be followed to the fullest possible extent. This requires a high level of international reserves, especially in raw material and food producing countries, and the willingness to spend these reserves liberally in times of crisis and to accumulate them during prosperous years. When reserves are insufficient, foreign or international assistance—such as is contemplated under the International Monetary Fund—will be necessary. Failing this, exchange control should be used as a third line of defense in order to continue compensatory policies and avoid the greater evils inseparable from deflation or currency devaluation. The disadvantage of the latter policies, as compared to exchange control, is that their corrective effect on the balance of payments is likely to depend on a contraction of income several times as severe as the international deficit to be plugged.

Exchange control, however, should be restricted to periods of temporary exchange difficulties and should not be used to avoid readjustments

¹¹ Devaluation may, of course, be preferable because its domestic impact is more favorable. For this reason in some cases it may also be less damaging internationally. From the point of view of eliminating a balance of payments deficit, however, the initial impact of both measures may be very much the same except for their reaction on capital movements.

to fundamental disequilibria. Even more important, the system of controls to be adopted should preserve the multilateralism and flexibility of international trade. It should not lend itself to administrative arbitrariness, rigid and uneconomic allocation of exchange, discrimination and bilateralism. These historical evils, associated with exchange control as used in the interwar period, should not lead to a blind and dogmatic rejection of exchange control as such, but to specific efforts to dissociate it from such abuses and to make it a proper instrument for the protection of the economy and the currency against temporary pressures on the exchange.

COMMENTS ON NATIONAL CENTRAL BANKING AND THE INTERNATIONAL ECONOMY

by

GOTTFRIED HABERLER

Consultant Board of Governors

One of the most challenging tasks of rational economic policy and one of the most intriguing and controversial problems to economic science is how to avoid or eliminate conflicts between domestic prosperity and maximum gain from international trade and international division of labor. Maximization of national output and income depends on both full employment of resources at home and full utilization of the opportunities of international trade.

Conflicts between the two conditions in the sphere of monetary and fiscal policy are quite frequent because measures appropriate for maintaining full employment are not always conducive to promoting stability of foreign exchange and of international trade and vice versa. These conflicts are rarely if ever irreconcilable but there is no simple formula or easy automatic device which would permit satisfactory conciliation in every single case.

Innumerable proposals for simple once for all solutions as well as for complicated specifications of policy under different circumstances have been made and many different policies have been tried out. Theoretical insight has steadily grown and a vast stock of practical experience has been accumulated. Thus whenever a new attempt is made at finding a solution of this problem as in connection with the setting up of the International Monetary Fund a strong effort is required in order to utilize to the fullest extent the lessons of historical experience and the latest improvements in theoretical analysis. Dr. Robert Triffin's paper is a most notable and stimulating contribution in both directions.

PURE AND MIXED GOLD STANDARDS

J. H. Williams once spoke of a fundamental conflict between the principles of central banking and the principles of the gold standard.¹ Similarly Dr. Triffin (page 49) stresses the latent antagonism between central banking and the classical gold standard. He points out that in

¹ "Monetary Stability and the Gold Standard," *American Economic Review* Supplement March 1932, reprinted in *The Post War Monetary Plans* (1944), p. 183.

its purest form the gold standard eliminates this conflict by removing one of its terms: there is not room for national central banking in a "purely metallic" currency system. A purely metallic currency was recommended by some of the early classical economists, but it was never completely realized in practice. The existence and development of credit and banking (not only *central* but also commercial banking) prevented the gold standard from being a purely metallic currency. It is true, attempts were made to make the actual mixed system behave like a purely metallic currency. The so-called "Palmer Rule" adopted by the Bank of England in 1827 and the famous Bank Act (Peel's Act) of 1844 were such attempts, but they remained abortive and the gold standard of the nineteenth century remained a "mixed system." That is to say, the circulating medium consisted of two parts, a comparatively small base of gold or gold-covered bank notes (international money) and a large superstructure of credit and fiduciary currency (domestic money).

Roughly speaking, we may say that the gold standard as it actually existed was superior to a purely metallic currency as far as the maintenance of internal stability and progress was concerned, because it provided a flexible money supply. But it placed difficulties in the way of maintaining external stability which would not have existed or would have been much less serious under a pure gold standard.

Only a few remarks can be made here about the first point, *viz.*, the superiority of the flexible, mixed system over the rigid pure gold standard. It cannot be denied, of course, that an elastic supply of money and credit has its dangers, that it can be and often has been abused for wholly undesirable inflationary experiments. But very few economists would assert that change in the money supply is bad of itself and should be avoided. According to these few economists, a purely metallic currency would be superior in both respects, for the maintenance of external and internal stability alike. According to them, depressions and the business cycle as such are entirely due to periodic expansion of money and credit; if the supply of money and credit were rigid as it would be under a pure gold standard, there would be no cyclical depressions.²

The great majority of economic experts realize, however, that things are not so simple; that the business cycle has deeper roots than expansibility of bank credit; that periods of expansion and contraction of

² There are shades of opinion in this group. Some would allow for a slow secular rise in the money supply in order to compensate for certain growth factors and to stabilize prices; others think that prices should be allowed to fall slowly *pari passu* with the secular rise in output.

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money expenditures and of output and employment could and would occur even if the money and credit supply were rigid, for even if the quantity of money were constant there could be fluctuations in hoarding and dishoarding, decreases and increases in the velocity of circulation, and decreases and increases in the demand for liquidity. There are again many shades of opinion. Most writers would concede that expansibility of credit contributes to the amplitude of cyclical fluctuations, but many would insist with varying emphasis, that over the long run such an increase in the amplitude of cyclical swings increases the rate of economic progress. But this is not the place to go more deeply into these complicated questions. Suffice it to say that there are very few economists who would seriously recommend making the money supply as rigid as it would be under purely metallic currency.

We come now to the other point where the pure gold standard would be superior to the mixed system. Dr. Triffin follows Professor Hayek and other writers in attributing a large share of the difficulties in dealing with international disequilibria to the mixed character of our historical currency systems. The erection of a large superstructure of fiduciary and credit money (bank deposits) upon a narrow gold base meant that, whenever there was a serious deficit in the balance of payments (drain on gold reserves) strong measures had to be taken to protect the gold supply and to maintain the convertibility of the currency into gold and foreign money. Under a pure gold standard the loss of gold (decrease in the international reserve) would lead to a reduction of the circulating medium by not more than the amount of the gold loss, but with a large credit superstructure it became necessary to contract the circulating medium by a multiple of the gold loss. Under the 'rules of the gold standard game' the central bank of a country that was losing gold was required to liquidate domestic assets (withdraw loans or sell securities) along with the loss of its international reserves, and the central bank of the country that gained gold was supposed to acquire domestic assets along with the accretion to its international reserves. This policy of 'secondary expansion and contraction' could not fail to accentuate price reactions to gold flows and thus to increase economic instability.

Two remarks may be made about this conventional criticism of the nineteenth century gold standard. First, it should be emphasized that the smallness of the gold reserve in the English monetary system was a subject of comment and criticism throughout the century. Professor Viner says 'From the late 1820s on to the end of the century a continuous

succession of writers called attention to the inadequacy of the gold reserve."³ Even Peel himself was said to have been "aware that the metallic base of the currency was extraordinarily narrow, but did not think that either the Bank or the people would willingly bear the expense of broadening it."⁴ In the early period, "the practice of extreme economy in the maintenance of bank reserves" (Viner) was undoubtedly largely due to the fact that a low reserve meant large profits to the Bank. But there was a gradual evolution of the Bank from a passive conversion fund operating according to certain rules and still influenced by the profit motive to a policy-making body fully conscious of its responsibility for domestic prosperity and of the possible conflicts between internal and international equilibrium. This transition was completed long ago, and when the Bank was finally nationalized by the present Labor Government, the nationalization was generally regarded as a pure formality. Politically it would have been impossible at an earlier date. But as far as the policy of the Bank was concerned, it would hardly have made any difference if the nationalization had occurred many years ago.

The second remark concerning the smallness of the reserve and the fractional reserve system is this: multiple expansion and contraction in response to gold flows was undoubtedly a disturbing factor. But it is easy to exaggerate its importance and very difficult to estimate its magnitude correctly. It is a fact that as far as central bank money (notes outside the Bank plus private deposits in the Bank) is concerned there is no multiplication of gold flows visible in the statistical record. For the interwar period (1919-39) Professor Ragnar Nurkse has shown that, contrary to what was required by "the rules of the game," "central banks' international and domestic assets . . . moved far more often in the opposite than in the same direction."⁵ That is to say, central banks, instead of magnifying, toned down expansions and contractions resulting from gold flows. No such careful study has been made for prewar periods, but an inspection of the relevant statistical series shows no trace of magnification. The volume of central bank money (notes plus deposits) and gold reserves move together, but the changes in the former are in most cases smaller than the changes in the latter. This is true not only of Great Britain but also of France and Germany. If there was a magnifi-

³ J. Viner, *Studies in the Theory of International Trade*, p. 265.

⁴ *Ibid.*, p. 267.

⁵ League of Nations, *International Currency Experience* (1944), pp. 68-69.

cation, it must have taken place entirely in the field of commercial bank deposits

In the case of Great Britain the record definitely shows such a magnification in that sphere. But for statistical reasons the average rate of magnification is not easy to determine.⁶ Moreover, the causal interpretation is a different matter altogether. That is to say, given a certain magnification, it remains still to decide to what extent it is due to (a) changes in the supply of central bank money and gold or (b) to changes in demand for credit. The criticism of "the rules of the game" implies that changes in money supply are all important. But modern business cycle and monetary theory definitely tends to lay more and more stress on demand factors. This shift in emphasis from supply to demand factors is supported by recent business cycle experiences, namely, the occurrence of sharp fluctuations in output and employment as well as price and money values without significant changes in supply conditions of credit. The slump of 1937 in the United States is an outstanding example.

Whatever the last word in these matters will be, it is important not to exaggerate the consequences of the fractional reserve gold standard. Such exaggerations may easily lead to the conclusion that the elimination of that objectionable feature of the gold standard is all that is needed to assure a smoothly running international money mechanism. Dr. Triffin is, of course, far from committing that mistake. He makes it abundantly clear that an increase in international reserves and liquidity as provided by the International Monetary Fund, although useful and necessary, is by no means a sufficient reform of the existing system.

⁶ The English balance of their balance were published of demand den

Cash on hand
Cash at call

Dec 31 1906
£ 80 4 mill on
£ 72 2 mill on

Dec 31 1907
£ 85 5 mill on
£ 62 0 mill on

"Cash at call" was reduced by £ 10.2 million, 'cash on hand' increased by 5.1 mill on during the same period. Edgar J. A. G., *Das Englische Bankwesen* (Leipzig 1910) p. 326n. See also G. Clare & *Money Market Primer* (London 1907), pp. 143f., for a description of the working of the mechanism.

BANK RATE AND THE BRITISH BALANCE OF PAYMENTS

In Great Britain the gold standard was operated largely by means of changes in the discount rate of the Bank of England. When a gold drain became serious, the bank rate was raised and *vice versa*. Dr. Triffin criticizes what he thinks is the traditional theory of that mechanism. Actually, he says (page 59), the mechanism "seems to have operated, in important respects, in a manner directly opposite to that described by gold standard theory." According to the classical theory, Dr. Triffin says, a rise in bank rate should have depressed British prices and so have influenced favorably the British balance of trade. In reality the influence of bank rate changes was more through capital movements and through their effects on the outside world, especially on agricultural and raw material producing countries.

It must be emphasized that these features of the mechanism were generally known and commented upon throughout the nineteenth century. That a rise in bank rate served to attract capital was known and stressed not only by the Banking School, especially by William Tooke (whom Dr. Triffin quotes) who was somewhat of a heretic, but also by Tooke's chief opponent, Lord Overstone, and the Currency School. Professor Viner, writing of the period 1825-65, says: "Most of the discussions of the role of the interest rate referred only to short-run disturbances, including periodic business fluctuations, or 'cycles,' and the changes in interest rates were related to specie movements mainly in terms of their influence on international movement of short-term funds, and their influence on relative prices was commonly held to be too slow-working to be an important factor in restoring international equilibrium. Most emphasis was put on the international mobility of funds."⁷

That higher interest rates in London may affect prices in foreign countries more quickly and powerfully than prices in Great Britain, and that therefore a rise in the discount rate in London may tend to turn the trade balance against England, has also been observed. R. G. Hawtrey, for example, says: "If this deflationary process [started by a rise in bank rate] went faster at home than abroad, it made the foreign exchanges favorable [for Great Britain] and occasioned an inflow of gold. But it

⁷ *Op. cit.*, p. 278. See also Elmer Wood, *English Theories of Central Banking Control, 1819-58* (Harvard University Press, 1939), pp. 150-51. As an example of a classical writer stressing the influence of bank rate changes on capital flows, compare the following passage from J. S. Mill, *Principles of Political Economy* (Ashley edition), p. 497: "It is a fact now beginning to be recognized, that the passage of the precious metals from country to country is determined much more than formerly supposed by the state of the loan markets in different countries, and much less by the state of prices."

sometimes went faster in some foreign country (particularly in case of a financial crisis there) and caused an outflow ' * But as Dr Triffin observes, this idea has not been systematically elaborated

All this serves to show that more can be learned from the older literature than Dr Triffin would make us believe and that business cycle implications were by no means overlooked This does not mean that the nineteenth century gold standard practices are not open to criticism It is misleading, however, to speak of the " nineteenth century gold standard, for the operation of the gold standard underwent a continuous evolution Slowly but surely the monetary authorities learned many useful lessons That in spite of all improvements in monetary management the business cycle did not show signs of disappearing or of becoming noticeably milder should make us cautious not to expect too much from purely monetary reforms

CYCLICAL AND FUNDAMENTAL MALADJUSTMENTS IN THE BALANCE OF PAYMENTS

Dr Triffin draws a sharp distinction between "world wide disturbances in balances of payments associated with cyclical fluctuations" on the one hand and ' fundamental disequilibria in single countries' international position He is on firm ground when following modern trade theory, he emphasizes the great importance of cyclical fluctuations and income changes for the functioning of the international money mechanism, especially the terrific disrupting force of world wide depressions It is very unlikely that international monetary agreements and institutions like the International Monetary Fund and the International Bank or international commercial policy agreements like the proposed International Trade Convention could weather the hurricane of a major world depression, nor is it likely that such agreements and institutions alone, without appropriate domestic policies in the large industrial countries, could do much to prevent such a storm It is probably also true that a full realization of the importance of the international business cycle and of depressions in particular is of fairly recent origin, at least as far as systematic, theoretical thinking is concerned But we have seen that not only practical men but also theorists, when they dealt with current problems, were always confronted with the reality of the cycle and did not overlook it altogether

It is questionable whether Dr Triffin is right when he says that,

¹ *A Century of Bank Rate* (London 1938), p 44.

according to classical gold standard theory in its original form or according to its modern "rules of the game" version, any disequilibrium, whatever its origin, has to be corrected by automatic or induced price changes brought about by domestic monetary expansion and contraction. It is even more questionable whether "fundamental disequilibrium" can be identified with "noncyclical disequilibrium" (*i.e.*, a disequilibrium not caused by a world-wide depression), and whether changes in relative price levels (through currency depreciation or domestic price adjustments) have to be ruled out as treatment of those maladjustments that emerge during world-wide depressions.

Concerning the first point, it may be sufficient to mention that J. S. Mill and other writers drew a distinction between two kinds of external gold drains (the term they used for balance of payments disequilibria): (a) drains that could be corrected only by changes in relative prices, "fundamental disequilibria" we now say, and (b) temporary drains that did not require such a treatment.⁹ Mill criticized the Act of 1844 on the ground that it forced the Bank of England to apply the same treatment to both kinds of drains. Later he admitted that even under this Act the Bank could differentiate between different drains if it kept a sufficiently large reserve in the banking department.¹⁰ It is interesting that Mill was criticized by contemporary writers for exaggerating the ease with which in practice the distinction between temporary and lasting disequilibria can be made. It is true he did not identify temporary maladjustments with cyclical or depression-born maladjustments. In that he was not so wrong, however unsatisfactory in other respects his analysis may appear to us now!

Although it is of utmost importance to recognize cyclical fluctuations in income and international demand, especially the depression phase of the cycle, as breeders of maladjustments in the balances of payments, it is impossible to regard cyclical and fundamental disequilibria as mutually exclusive opposites. A brief reflection will show that the two concepts overlap, especially that depressions frequently breed fundamental as well as temporary (reversible) maladjustments.

The term "fundamental disequilibrium" was introduced by the Bretton Woods Agreements, without giving any definition, leaving it to the practice of the Fund to evolve suitable criteria. Whatever the precise

⁹ See Mill, *Principles* (Ashley ed.), p. 665, and Viner, *loc. cit.*, pp. 261-64, for other references.

¹⁰ See Viner, *ibid.*

meaning and criteria of a "disequilibrium," there can hardly be a doubt that by a fundamental disequilibrium must be meant a serious and lasting one. How serious it must be and how long it must last in order to be regarded as fundamental cannot and need not be decided here. The answer will largely have to depend as Professor Nurkse has pointed out on the magnitude of the international reserves at the disposal of the country concerned (including its credit line with the Fund).¹¹ Whatever the precise answer in each particular case there can be no doubt further more that any serious depression can and is likely to create fundamental disequilibria which outlast the depression and do not automatically reverse themselves as soon as the depression is over. Depressions always cause or reveal structural changes. Some eminent students of the business cycle would even say that depressions are the vehicles for the assimilation of structural change into the economic system. We need not go so far to realize that the initial impact as well as the permanent incidence of the changes revealed or brought about by depressions is not likely to be the same in different countries. Moreover reactions of different countries to depressive forces cannot be assumed to be the same. Some countries may yield to deflationary forces and let their prices drop while others may institute vigorous anti-depression policies and maintain their price and cost levels with varying success and in various degrees. These divergences in the impacts of depressions and in the reactions of different countries result in lasting maladjustments.

All this makes it impossible to follow Dr. Triffin when he says (page 64 and else where) that disequilibria resulting from cyclical fluctuations in the major world markets are of a temporary character. We cannot identify all depression born maladjustments with temporary, 'reversible' nonfundamental disequilibria. It is not generally or even as a rule true that cyclical maladjustments are not fundamental. They cannot as a rule be expected to reverse themselves completely or sufficiently and it would thus be quite unsafe to assume that they never require correction by adjustment in relative price and cost levels (by means of either currency depreciation or internal expansion and contraction).

HOW TO DEAL WITH BALANCE OF PAYMENTS MALADJUSTMENTS IN DEPRESSIONS

What policies should thus be recommended for balance of payments troubles in depressions? Everybody will agree with Dr. Triffin's emphasis

¹¹ See Ragnar Nurkse *Conditions of International Monetary Equilibrium* (Princeton 1945). This is the most thorough and convincing discussion of the subject I have seen.

on the responsibility of the largest and most industrialized countries to maintain their economies at high levels of employment and production. Sharp reductions in output and employment, like the one which occurred in the United States in 1937-38 (which fortunately did not last very long), would be extremely disturbing for the rest of the world. But Dr. Triffin is certainly realistic when he says that, in spite of all good intentions, depressions and balance of payments disequilibria "will continue to occur and to threaten domestic stability, especially in countries with undiversified economies." What should those countries do when they are confronted with a fall in their exports due to a depression abroad?

In general, he says, an effort should be made everywhere to offset the drop in exports to the largest possible extent by domestic compensatory policies. Such policies, if generally pursued, will "help to moderate both national and international depressions and to preserve fundamental international balance."

But such a policy requires large international reserves. There the International Monetary Fund will be of great help. It provides in itself an augmentation of international reserves through various devices and it can induce deficit countries to make full use of their own reserves outside the Fund. Dr. Triffin is certainly right in saying that the main danger is that the Fund's credit may be abused by many countries, that the borrowing may assume a continuous character and indebtedness to the Fund may pile up rapidly until the countries' quotas are exhausted. But to speak, as Dr. Triffin does, of such an abuse only if the Fund's credit is used "for the financing of fundamental, as opposed to cyclical or fortuitous, disequilibria in a country's international account" is too narrow, if "cyclical disequilibrium" includes any disequilibrium caused by depression abroad.

Dr. Triffin clearly realizes that with its present resources the Fund could hardly hope to finance all deficits which would arise even in the course of a mild cyclical depression without taking "remedial actions." In other words, if the Fund treated every cyclical deficit as a temporary affair, it would in all likelihood run out of important currencies (*i.e.*, they would become "scarce") and many of the deficit countries would exhaust their quotas before the storm had passed—if it would pass at all, one should perhaps add, without remedial actions.

What should those "remedial actions" be? Dr. Triffin's remedy is exchange control of a certain kind, but he rejects currency depreciation (as well as the analytically closely related gold standard technique of

internal adjustments of costs and prices by means of monetary expansion and contraction)

EXCHANGE CONTROL¹²

Dr Triffin proposes a kind of nondiscriminatory exchange control which it would be better not to describe as exchange control at all but as partial and, so he hopes, temporary currency depreciation. There would be an official exchange rate and a free, auction price of foreign currencies, the former would be stable, the latter would fluctuate according to fluctuations in demand and supply. The low official rate would apply to 'easily controllable exports' (which the author thinks would be the overwhelmingly larger part of all exports), to certain categories of "necessary or essential" imports, and to approved capital exports, the higher auction rate would apply to other imports, to uncontrollable exports and other exchange proceeds of "unimportant or practically uncontrollable transactions" (Dr Triffin also thinks that capital exports beyond those which can be admitted to the official market can be channelled, apparently without special permission, through the auction market without any harmful repercussions. "The higher rates prevailing in the free market in times of crises would tend to discourage capital exports and encourage capital imports." I should like to say, in passing, that this seems to me much too optimistic. It assumes a degree of confidence on the part of the prospective capital exporters in the success and the self liquidating character of the whole scheme which is hardly warranted, as the following analysis will show.)

"This is certainly a most ingenious scheme that is well worthy of trial on a large scale when need arises." It is undoubtedly far superior to anything that goes nowadays under the label 'exchange control', therefore Dr Triffin would be well advised not to call it so. But it has certain weaknesses and I think Dr Triffin shows too much enthusiasm and optimism—a likeable and understandable trait of every successful inventor—when he expects that in most cases his system will be self liquidating, the higher auction rate falling back to the lower official rate when the storm has blown itself out. I think the opposite or some intermediate outcome is more likely, namely, that the official rate will have to be raised to the

¹² A similar scheme has apparently been operated in Argentina. Its inventor there was the former General Manager of the Central Bank of Argentina, Paul Preuss. On a smaller scale it has been in successful operation since the middle of 1945 in Paraguay, but not yet during a severe world wide depression.

auction rate or the two be allowed to meet in the middle. If that is correct, the system would prove to be not a partial and temporary depreciation, but a first step towards a general and permanent depreciation.

The plan has the following weaknesses: (1) The administrative difficulties should not be underestimated, even though they are certainly smaller than in the case of ordinary exchange control and quota systems. Exporters will have a strong incentive to sell their export proceeds in the black market at the auction price or somewhat below. In the case of undiversified countries with a few staple commodities as exports this consideration may not be very important, but for practically all European countries it is a very serious matter.

(2) It is an illusion to assume that the system can be operated in an entirely automatic fashion in the sense that lists of "necessary" and "urgent" imports can be drawn up according to objective criteria before any emergency arises, and that then in case of need those prearranged plans are simply put into operation without any further arbitrary decision. In reality, it will be necessary to extend, restrict, and otherwise modify the list of essential imports according to changing circumstances, and according to the severity and length of the crisis. A study of the Monetary Law of Guatemala,¹³ which embodies Dr. Triffin's ideas, shows that there is danger that in practice the degree of automatism of such a system will prove smaller than the theoretical outline as presented in Dr. Triffin's contribution to the present pamphlet suggests. For example, Article 57 empowers the Monetary Board "to amplify and to restrict the list of such merchandise [i.e., "essential imports" to which the official exchange rate applies] in accordance with the situation in the exchange market." Moreover, the creation of more than two categories of commodities and more than two rates (official and auction) is provided for. The Monetary Board can create any number of groups of imports, "according to the degree of essentiality and urgency of the operations and may distribute the offers of exchange among these groups, with the object of assuring an adequate distribution of available exchange in accordance with the real needs of the economy." For each group there will be a separate (auction?) rate with the proviso that "the distribution [of the available foreign exchange among the different groups] must be made in such a way as to avoid having the rates corresponding to more essential and more urgent operations exceed those applicable to less essential or

¹³ For a translation of the text, see *Federal Reserve Bulletin*, March 1946, pp. 257-88.

less urgent operations (Article 66) This is a far cry indeed from the simplicity of the theoretical scheme and begins to resemble a full fledged exchange control system of the Schachtian type Moreover there is real danger that when an actual test comes and the restrictive measures contemplated in the Guatemalan law are put into practice, we shall, under the influence of pressures and temptations from interested parties, experience further deviation from the theoretical ideal Something like that seems to have happened in Argentina

The International Monetary Fund, if it decides to permit experiments with the system under consideration—which it would be well advised to do in my opinion—will have to exercise much vigilance to preserve in practice the simplicity of the system and its semi automatic character which make it so attractive in theory and to prevent it from degenerating into the ordinary complicated and arbitrary kind of exchange control

(3) The Government or the Central Bank would make a handsome profit by selling part of its foreign funds at the auction price while paying only the official rate So 'vested fiscal interests' in the system would be created This may be less serious than the creation of vested interests of private importers which grow up under ordinary exchange control and quota systems But the history of monetary policy is full of cases where fiscal considerations have led to the indefinite postponement of desirable reforms Moreover, would it not be tempting to use the exchange profits of the Government to subsidize exports? This brings us to the next weakness of the system

(4) Under Dr Triffin's plan exports would not be stimulated as under a depreciation If there is a depression in the big industrial countries and the price level there falls, or even if prices there do not fall, but income contracts and the demand of those countries for imports falls—would it be advisable for the raw material and food producing countries to make no price concessions at all by leaving the value of their currency, as far as exports are concerned, unchanged? Would they not run the danger of losing part of their market permanently by stimulating competitive production in the industrial countries themselves and in third countries?

(5) Prices of privileged, 'essential' imports would be kept low or would fall (because foreign export prices fall in a depression) and com

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peting home industries would be penalized. On the other hand, prices of nonprivileged imports—which may not all be in the luxury class, for if the deficit is large it will be necessary to shift more and more commodities from the privileged to the nonprivileged class—will be kept high and the production of domestic luxuries will be stimulated and thus vested interests will be created.

All this, it seems to me, adds up to a strong case for using the proposed plan only for a very limited period of time, say, for a year or two at the most. If the situation does not correct itself within a year or two, and the scheme has to be kept in force longer, it should be taken as an indication that the official rate has to be adjusted, that is to say, that a general depreciation is necessary. It will be an important task of the International Monetary Fund to elaborate proper safeguards. This may take the form of periodic reviews of the situation, of special permission being required for changes in the list of essential and nonessential commodities and similar provisions.

Another conclusion to be drawn from this criticism is that currency depreciation should not be ruled out categorically in a depression. Of course, a wave of competitive depreciation, as in the early thirties when one country after the other depreciated and each tried to undercut the other, must be avoided. Begger-my-neighbor depreciations, *i.e.*, depreciations not justified by a serious balance of payments deficit, must not be permitted. Only deficit countries should be allowed to depreciate, and they should be allowed to do so only after they have made substantial use of their international reserves, including their quota in the Fund, and possibly after they have tried out Dr. Triffin's "partial depreciation" or, as he calls it, "exchange control" scheme.

Dr. Triffin's specific arguments against the use of depreciation in the case of "world-wide cyclical disequilibria" apply only to such abuses and are not convincing when directed against selective depreciation by deficit countries only. Only of competitive depreciation by deficit and surplus countries alike can it be said that it would "spread throughout the world any cyclical disturbance arising in a major economic area" (page 80). The case of a selective depreciation is different. In that case the "major economic areas" in which a "cyclical disturbance" (depression) has arisen are the surplus countries. If now the deficit countries (after the above-mentioned initial stages) are allowed to depreciate, there can be no question of propagating the

depression from the major areas to the depreciating countries. Such a selective depreciation is a protective measure of the deficit countries.

Dr Triffin says that efforts to correct deficits by depreciation (or deflation) are thwarted because such action by any one country aggravates difficulties in supply and export markets, as well as in competing countries and leads to similar, and mutually self-defeating measures of defense (page 79). But does this argument not spring from excessive pessimism and defeatism? Just consider what this argument amounts to. There are countries which have developed a serious deficit, they have exhausted their reserves including their quota with the Fund, they have perhaps taken Dr Triffin's "exchange control" medicine when their trade deficit persists and they receive permission from the Fund to depreciate their currency, is it reasonable to assume that the Fund will not be able to restrain the surplus countries from using "self-defeating measures of defense"? Defense against what? Not against an unprovoked incursion of their markets, but defense of a balance of payments surplus created by depression, i.e. defense of the illicit fruits of an outlawed beggar my neighbor policy! Must we really assume that "devaluation will spread from country to country"? If it were true that the Fund cannot be expected to be able to prevent competitive devaluations by deficit and surplus countries alike, it would seem to me that we might just as well give up altogether any hope and any attempt at international regulation of these matters!

We may however mention two arguments against the use of depreciation which Dr Triffin does not emphasize (quite rightly in my opinion) although one of them lurks in the background of his analysis and is occasionally alluded to by him. The first is that expected depreciation and its frequent use will lead to disturbing speculative capital movements and other speculative anticipations. This argument should not be taken too lightly, but it is mainly directed against frequent use of the depreciation weapon which is not here advocated (The question arises however, whether fluctuations of the auction rate in Dr Triffin's exchange control scheme would not lead to disturbing speculative capital and commodity movements. It seems to me that this danger cannot be lightly dismissed especially because the self liquidating and temporary character of the scheme is likely often to prove illusory in practice.)

The second argument against depreciation is more complicated

It is based on the now fashionable assumption that the elasticities of international demand are often such that a depreciation cannot always be expected to improve the balance of payments. I do not think that this is a realistic theory, barring perhaps short-run considerations of a few exceptional cases, but it would take too much space to argue the matter at this point. Dr. Triffin alludes to it, but does not make it a corner stone of his case.

FUNDAMENTAL DISEQUILIBRIUM

Dr. Triffin adds some very interesting points to the much discussed question of the criteria of a fundamental disequilibrium, the existence of which entitles a country under the Bretton Woods Agreement to receive permission for depreciation of its currency.

Dr. Triffin stresses, quite rightly in my opinion, that "a deficit in a country's balance of payments is not necessarily" evidence of a fundamental disequilibrium justifying currency depreciation (page 75). But he is reluctant to accept the rule that a serious and persistent deficit (whether brought about by deflation and depression abroad or by inflationary policies at home or possibly by a sharp shift in international demand) should be so regarded, although there are passages which seem to suggest that this rule is implicitly applied. For example: It is convincingly argued that the probability of the existence of "a durable disequilibrium" should be judged in the light not only of the actual balance of payments but also with due consideration of monetary and banking statistics, price and production data, *etc.* Suppose the conclusion is reached in a particular case that no fundamental disequilibrium exists and that hence the country in question be allowed to pursue, for a time, compensatory policies with the aid of the Fund. "This interpretation would be confirmed by events if the deficit did in fact disappear," but it would have to be regarded as disproved by the facts "if the deficit continued" (page 76). This suggests that a persistent deficit (the assumption of which always implies, it should be observed, a forecast of future events) is, in fact, accepted as the criterion of a fundamental disequilibrium.

But then Dr. Triffin cites the famous Belgian case of 1934 in which a fundamental disequilibrium is said to have existed without a visible deficit. The facts of the case are not quite easy to ascertain, because accurate figures of short-term capital movements are not available.

Moreover, protectionist measures must have contributed (to an unknown extent) to avoidance of a deficit which otherwise would have appeared. But it is clear that there was no visible deficit, that is to say that there were no gold losses although there may have been an invisible deficit compensated by an influx of short term capital.

Dr Triffin then argues against a proposal of mine to the effect that a country which suffers from a depression and thinks that it is entitled under the "fundamental disequilibrium clause" of the Articles of Agreement to a depreciation should at first attempt to protect itself through compensatory domestic policies and should be allowed to depreciate only after a deficit in its balance of payments has actually appeared. Dr Triffin has two arguments against this proposal. The first is that this policy would lead to unnecessary disruptions, "since labor and other economic factors would have to be uprooted and temporarily transferred to other activities."

But does that really follow? In an industrial country with highly diversified exports it would always be possible to choose compensatory policies that operate partly on the depressed export industries themselves and partly on domestic industries which are depressed because of the depression in the export industries. In the Belgian case that would certainly have been possible and it would not have been necessary to uproot anybody or to transfer labor temporarily into other industries. A deficit in the balance of payments would have appeared almost immediately after an offsetting domestic policy was started and depreciation could then have been permitted according to the proposed rule. (Since that could have been foreseen so easily in the Belgian case I personally would not have hesitated to give the permission to depreciate in advance!) Furthermore, it should be observed that the Belgian difficulties were caused by a world wide cyclical depression and should therefore, according to Dr Triffin's own rules, have been offset to the largest possible extent by domestic compensatory policies (page 64) even if there had been a current drain of the country's international reserves! The fact that there was no visible deficit in the balance of payments would have made one should think compensatory policies all the more easy and appropriate!

Dr Triffin's second point that in primary producing countries the effectiveness of compensatory domestic action may be very

limited, is well taken. I have called attention to these limitations myself.¹⁵ But that even primary producing countries are not entirely helpless is shown by the "remarkable success," to use Dr. Triffin's own words (page 60), with which the Central Bank of Argentina offset external drains through policies of domestic expansion. However, Argentina is in a more favorable position in that respect than any other Latin American country.

A TENTATIVE REFORMULATION

I shall now try briefly to reformulate some implications of defining "fundamental disequilibrium" in terms of balance of payments deficits and discuss a few apparent and genuine exceptions to this rule.

What is said in the following pages seems to me in substantial agreement with Dr. Triffin's tentative definition of fundamental disequilibrium as a "maladjustment in a country's economy so grave and persistent that the restoration or maintenance of satisfactory levels of domestic activity, employment, and incomes would prove incompatible with equilibrium in the balance of payments, if not accompanied by extraordinary measures of external defense, such as a change in the exchange rates, increased tariff or exchange control protection, etc." (page 77).

This seems to me a most ingenious formulation which contains, in a nutshell, all important elements of the problem. The fact that the following pages were written before I saw Dr. Triffin's definition is a welcome indication that economists' thoughts on these matters are veering in the same direction.¹⁶

We speak of a fundamental disequilibrium, if there is a serious and persistent deficit in the balance of payments.¹⁷ It has been already

¹⁵ "Some Factors Affecting the Future of International Trade," in *Economic Reconstruction*, edited by S. E. Harris (1945), p. 330.

¹⁶ The definition was inserted in a later version of his paper and the references to it were subsequently added to my comments.

¹⁷ Note that an actual or potential deficit in the balance of payments is one of the essential characteristics of fundamental disequilibrium also in Dr. Triffin's definition. It is true that in Dr. Triffin's formulation the "gravity and persistency" of the maladjustment is not defined by the size and persistency of the deficit in the balance of payments. But I do not think that this constitutes a serious difference between his views and mine. For suppose he defines the "gravity and persistency" in terms of the volume of unemployment or the loss in national income. That would necessitate vigorous anti-depression measures which would involve a large balance of payments deficit. In any case, the actual and prospective balance of payments deficit in conjunction with the size of the international reserve constitutes the limiting

indicated that the question of how large and persistent a deficit must be in order to be called fundamental should be answered mainly with reference to the magnitude of the international reserve at the disposal of a country. It should be clearly realized that the judgment to the effect that there exists a fundamental disequilibrium always implies a forecast of future events. The fact that a deficit has existed in the past or that it is visible at present, without expectation that it may continue in the future, should not be regarded as a sufficient reason to depreciate the currency.

From the fact that forecasts of future events are always implied it follows that other data than *actual* balance of payments statistics have to be used in order to ascertain whether there is a fundamental disequilibrium, *i.e.*, whether a serious deficit is to be expected in the future. It is only natural that price and cost comparisons between different countries will figure prominently, although not exclusively, in such a study. This is, however, not the same thing as the adoption of a purchasing power parity or a cost parity criterion of the equilibrium exchange. A rigid theory of exchange parity whether in terms of wholesale prices, cost of living, production costs, or wages would necessarily break down whenever there is a substantial shift in international demand which may be brought about by a variety of factors such as changes in tariffs, other impediments to trade, transportation costs, technological changes, changes in consumer demand and last, but not least the business cycle. Only in conjunction with a judgment about these things can price and cost comparisons serve as a guide.

Now a few words about possible exceptions to the rule that a serious and persistent deficit should be regarded as the criterion of fundamental disequilibrium. Such a deficit can be prevented from arising or be eliminated once it has arisen by a contraction in income and employment (depression) or by the imposition of new import restrictions such as tariffs, quotas, exchange control, *etc.* These are the things we wish to avoid. Therefore, a deficit which is being avoided or eliminated by *ad hoc* changes in import restrictions or by a drop in

factor upon anti-depression policies. It goes without saying that different countries having different marginal propensities to import will lose international reserves at different rates for a given increase in income and employment. This factor has to be kept in mind in estimating the prospective deficit.

real income and employment should be regarded as actually existent.¹⁵ This rule must, however, be interpreted with great care. On the one hand, it should not be taken to mean that the mere existence even of a severe depression and of mass unemployment entitles a country to receive permission to depreciate, even if it could be expected with confidence that such a depreciation would alleviate the depression. For such an alleviation must not be achieved at the expense of somebody else; it must not be achieved by creating a balance of payments surplus which is a deficit of somebody else. Only if the managers of the Fund are confident that a depreciation will benefit the depreciating country without creating a serious and persistent surplus, should they give permission for depreciation. Now, if a deficit does not exist when a depreciation is contemplated, the presumption is that a surplus will appear after the currency has been depreciated; for it is only in exceptional cases that there will not be a least a considerable time lag between the rise in exports and imports. The Belgian case cited above is said to have been such an exceptional case. Granted that it was, it would not have been easy to diagnose it as such in advance. For that reason, I suggested the rule that countries should at first try domestic compensatory policies and ask for depreciation only after a deficit has in fact arisen. (That in highly specialized economies there may be little scope for compensatory domestic policies has already been stated at an earlier point.) On the other hand if, in the absence of a balance of payments deficit, depreciation is requested on the ground that the appearance of a deficit is prevented by undesirable artificial restrictions on imports, the permission to depreciate should obviously be conditioned upon the prior or simultaneous removal of those restrictions on imports.

Real exceptions to the rule that depreciations should not be allowed, if they are expected to result in an export surplus of the depreciating country may, of course, be granted in exceptional cases: small countries which are in a specially difficult situation may be allowed to stimulate their economies by developing an export surplus, even if it is done at the expense of somebody else. But it should be clearly realized that such a policy, if pursued too often or by too many

¹⁵ This rule has been suggested by Nurkse, *loc. cit.* This rule again is contained in Dr. Triffin's definition, for he speaks of maintenance of satisfactory levels of activity being incompatible with equilibrium in the balance of payments *if not accompanied by protectionist measures*.

countries, is not only disturbing internationally and, if others retaliate, self defeating, but it is also open to objections from a purely national point of view even when no retaliation is to be feared for suppose a country succeeds in stimulating its economy by creating an export surplus (through the working of the so called foreign trade multiplier), it must not be forgotten that, by exporting more than it imports, it gives away more goods to foreign countries than it receives from them. A domestic policy which increases output and employment without creating an export surplus would be clearly preferable even from a purely national point of view, unless for some special reasons (for example in an undiversified economy) such domestic anti depression policies cannot be undertaken in an efficient manner or the accumulation of gold or foreign assets (the offset to the export surplus) is desired in itself.

There are also cases where the creation of an export surplus in one country, with a view to alleviating a depression there, will not only be condoned but even welcomed in the import surplus countries, namely, if the import countries are under inflationary pressure. In these cases, depreciation will tend to alleviate at the same time deflation in one country and inflation in the others.

One more factor, which affects and complicates all cases discussed so far should be mentioned. Until now we have assumed that a depreciation always tends to eliminate a deficit or create a surplus in the balance of payments of the depreciating country. This need not be true, however, in all cases. I would argue that in the long run exceptions are very rare. But in the short run they may not be infrequent.

Although this brief outline does not, and is not intended to, do full justice to the complexity of the problem, it is surely not simplicity in itself. Moreover, a set of rules even if it sounds convincing, should not be allowed to obscure the fact that at every stage of its application, beginning with the simple question as to the mere existence of a deficit whether persistent or not, difficult problems of judgment are involved. As Professor Howard S. Ellis once wisely remarked 'To define the equilibrium rate formally is one thing, to determine its height or probable behavior in a given situation, another. Precisely the latter and infinitely more complicated task must be performed by the monetary authorities who have to determine the extent of devaluation.'